The
DURHAM
TECHNICAL INSTITUTE

DURHAM, NORTH CAROLINA

ANNUAL CATALOGUE
1967-1968

DURHAM TECHNICAL INSTITUTE
OFFICIAL 1967-68 SCHOOL CALENDAR

Fall Quarter

Labor Day	September 4, 1967
Registration, New Students	September 5, 1967–9:00 A.M.
Registration, Old Students	September 6, 1967–9:00 A.M.
Classes Begin	September 7, 1967–8:00 A.M.
Last Day Course may be added	September 14, 1967
Last Day Course may be dropped without record	September 28, 1967
Thanksgiving Holidays	November 23, 24, 1967
Final Exams	November 27, 28, 29, 1967
Quarter Ends	November 29, 1967
Administrative Work Days	November 30, December 1, 1967
Grades Due Main Office	December 1, 1967, 12:00 Noon

Winter Quarter

Registration	December 4, 1967–9:00 A.M.
Classes Begin	December 5, 1967–8:00 A.M.
Last Day Course may be added	December 12, 1967
Christmas Holidays	December 22, 1967 to January 2, 1968, both dates included
Last day course may be dropped without record	January 4, 1968
Final Exams	February 26, 27, 28, 1968
Quarter Ends	February 28, 1968
Administrative Work Days	February 29, March 1, 1968
Grades Due Main Office	March 1, 1968, 12:00 Noon

Spring Quarter

Registration	March 4, 1968–9:00 A.M.
Classes Begin	March 5, 1968–8:00 A.M.
Last day course may be added	March 12, 1968
Last day course may be dropped without record	March 26, 1968
Easter Holidays	April 12, 15, 1968
Final Exams	May 20, 21, 22, 1968
Graduation Rehearsal	May 23, 1968–7:00 P.M.
Administrative Work Days	May 23, 24, 1968
Grades Due Main Office	Seniors–May 23,1968–8:00 P.M. Others–May 24, 1968
Graduation	May 24, 1968–8:00 P.M.
Quarter Ends	May 24, 1968

Summer Quarter

Registration	June 3, 1968–9:00 A.M.
Classes Begin	June 4, 1968
Last day course may be added	June 11, 1968
Last day course may be dropped without record	June 25, 1968
Independence Day Holiday	July 4 & 5, 1968
Final Exams	August 20, 21, 1968
Grades Due Main Office	August 23, 1968
Graduation	August 23, 1968–11:00 A.M.

Summer School

Registration	June 10, 1968–9:00 A.M.
Classes Begin	June 11, 1968
Independence Day Holiday	July 4 & 5, 1968
Final Exams	July 22, 1968
Grades Due Main Office	July 23, 1968

CATALOGUE
OF
THE
DURHAM TECHNICAL INSTITUTE

1967-68

1637 LAWSON STREET
DURHAM, NORTH CAROLINA 27703

VOLUME 1 JULY 1967

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Edward L. Phillips, Vice-Chairman
Harold K. Collins, Secretary

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	Expiration of Term
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Ronald C. Foreman	June 30, 1969
Mrs. Herbert Fox	June 30, 1971
A. Carrol Pledger	June 30, 1973

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George W. Newton	June 30, 1973
Milton Roberson	June 30, 1969
Nathaniel B. White	June 30, 1967

APPOINTED BY DURHAM CITY BOARD OF EDUCATION

Edward L. Phillips	June 30, 1969
Donnie A. Sorrell	June 30, 1973

APPOINTED BY DURHAM COUNTY BOARD OF EDUCATION

Dr. Sherwood Githens	June 30, 1971
Dean Walter J. Seeley	June 30, 1967

ADMINISTRATION

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B.A., M.Ed. University of North Carolina: Advanced Graduate Study, N.C. State University

Bernard Haugen . . . . *Supervisor Manpower Development Training*
B.S., M.A.T. University of North Carolina

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B.S., M.A.Ed. East Carolina College

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B.S. Clemson University; M.A. East Carolina College: Advanced Graduate Study, N.C. State University; University of North Carolina

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B.A. Arkansas State College; M.Ed. University of North Carolina: Advanced Graduate Study, University of North Carolina

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B.A., M.A. East Carolina College: Advanced Graduate Study, North Carolina State University

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THE FACULTY

Harold K. Collins .... *President of Durham Technical Institute*
B.S. Morehead State University; M.Ed. North Carolina State University

Betty W. Anderson .... *Instructor of Practical Nursing*
B.S. in Nursing Emory University

Louise M. Beard .... *Instructor of Practical Nursing*
B.A. in Nursing Duke University; M.A. North Carolina State University

George Edward Bock .. *Instructor of Mechanical Engineering Technology*
A.B., M.Ed. Columbia University

Billy R. Cates .... *Instructor of Business Administration*
B.A. Duke University: Graduate Study, North Carolina State University

John Christopher .... *Instructor of Mathematics and Physics*
B.A. University of North Carolina: Graduate Study, North Carolina State University

Phoebe G. Collins .... *Instructor of Practical Nursing*
B.S. in Nursing Vanderbilt University

Ruth Cordle .... *Instructor of Secretarial Science*
B.A. University of North Carolina at Greensboro; M.S. University of North Carolina

Ruby A. Dasher .... *Instructor of Adult Education*
Undergraduate at Fisk University and North Carolina College at Durham

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B.S.E.E. Duke University

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John E. Gilmore, Jr. .... *Instructor of Automotive Technology*
Undergraduate at North Carolina State University

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B.S. Atlantic Christian College: Graduate Study, North Carolina State University

Kathryn J. Gray .... *Instructor of Practical Nursing*
R.N. University of Virginia School of Nursing: Undergraduate, North Carolina State University

Paul M. Gray .... *Instructor of Electronics*
B.S.E.E. University of North Carolina: Licensed Professional Engineer Missouri

Esther W. Hodges .... *Instructor of Secretarial Science*
B.S. George Peabody College for Teachers

Orville L. Humphries .. *Coordinator of Fundamental Learning Laboratory*
B.S. East Carolina College

ALBERT D. JERNIGAN .... *Instructor of Business Administration*
B.S. in Business Administration University of North Carolina: Graduate Study, North Carolina State University

DORIS B. JONES .... *Instructor of Practical Nursing*
R.N. Grady Memorial Hospital School of Nursing; B.S. North Carolina College at Durham: Graduate Study, North Carolina College at Durham

GEORGIA A. JONES .... *Instructor of Practical Nursing*
B.S. in Nursing Meharry Medical College, School of Nursing: Graduate Study, North Carolina State University

LEE ROY MORRIS ...... *Coordinator of Fundamental Learning Laboratory*
B.S., M.A. East Carolina College

HYLAND R. MCDANIEL .... *Instructor of Mechanical Technology*
Master Tool and Die Maker, Apprentice, Edward G. Budd Manufacturing Company and Laurel Machine Works

JAMES T. PATRICK .... *Instructor of Engineering Graphics*
B.S. North Carolina State University: Graduate Study, North Carolina State University

STACY L. PECK .... *Instructor of Business and Social Studies*
B.A. Bates College; M.B.A. Harvard Graduate School of Business Administration

ELSIE H. PERNELL ...... *Coordinator of Fundamental Learning Laboratory*
B.S., M.A. East Carolina College: M.A.T. University of North Carolina

EDWIN L. REITSMA .... *Instructor of Dental Laboratory Technology*
Undergraduate Study at North Carolina State University

WILLIAM CARL RIDDLE, JR. .... *Instructor Automotive Technology*
Undergraduate Study at North Carolina State University

E. STANLEY ROWNAD .... *Instructor of Dental Laboratory Technology*
Certified Dental Technician; Undergraduate at North Carolina State University

THEODORE C. SAMPLE .... *Instructor of Dental Laboratory Technology*
B.A. Houghton College; D.D.S. McGill University: Advanced Graduate Study, North Carolina State University

WILLIAM H. SCOTT .... *Instructor of Physics*
B.A. Duke University: Graduate Study, University of Houston: North Carolina State University

ROBERT M. THOMPSON .... *Instructor of English and Social Studies*
B.A. Davidson College: Graduate Study, University of North Carolina

MACK P. TRENT, JR. .... *Coordinator of Fundamental Learning Laboratory*
B.S., B.A., M.A. East Carolina College: Advanced Graduate Study, Duke University

GEORGE K. WILLIAMS .... *Instructor of Mathematics*
B.S.E. United States Naval Academy; M.A.T. Mathematics, Duke University; Certified Naval Ordinance Engineer

GENERAL INFORMATION

HISTORY AND ORGANIZATION

The origin of Durham Technical Institute is both interesting and involved. In the original sense the history of the Institute may be traced back to June 1948, when a program of Practical Nursing was established under the Vocational and Adult Education Department of the Durham City Schools. Numerous terminal adult education programs were developed in the years that followed. Such programs included Mechanical Drafting, Architectural Drafting, and Electronics Technology. Courses, which in most cases were operated at night, were conducted in the classrooms and laboratories at Durham High School and at Hillside High School. Admission requests to these programs and tuition rates were essentially the same then as they are today.

By 1957, when the North Carolina General Assembly authorized a small appropriation to establish a limited number of area schools to be known as Industrial Education Centers, Durham already had a vigorous program in adult education in motion. Along with various adult educational programs, many short courses were offered in elementary education for adults. Courses to upgrade the skills of workers in a variety of trades were also offered.

As a result of the Assembly's appropriation, a challenge went out to the various county school administrative units in the state to provide a separate educational facility that would provide for the educational needs of a whole area's population. A new comprehensive curriculum was to be devised for citizens in need of education and technical skills required to advance satisfactorily in the world of work.

Durham was among the first six counties in the state to meet this challenge to the satisfaction of the State officials. By a majority vote, the residents of the county in June 1958, made $500,000.00 available to purchase the site and to erect the building that currently houses the Institute. On programs of Electronics Technology at the Durham Industrial Education Center. The Institution continued to operate as an industrial education center until Februray 4, 1965, when the State Board of Education officially designated that henceforward it be properly identified as a technical institute. On March 30, 1965, the Board of Trustees authorized that the name of the March 30, 1965, the Board of Trustees authorized that the name of the institution be changed to Durham Technical Institute, and that students satisfactorily completing approved two-year programs of study be awarded the Associate in Applied Science degree.

PURPOSE AND PHILOSOPHY

Durham Technical Institute has an educational role that is different from that of other institutions of higher learning in the area. It provides a physical setting and a qualified faculty for the total education of students. To be realistic it must be identified as a comprehensive community school. To be classified as such implies a uniqueness of purpose and responsibility that needs careful definition.

The Institute belongs to the citizens whom it serves and from whom it receives support. As their institution, it is responsive to their individual needs. Not only does it provide educational programs for students who possess needs that can not be fulfilled in other institutions, it also is an instrument of service for the community as a whole in all its divergent activities. It is the purpose of the Institute to be highly flexible in its offerings so as to provide as many educational opportunities for specialized training as practicable. It is also the purpose of the Institute to help each of its students develop abilities and attitudes which increase their effectiveness as citizens and as participating members of their community.

The Institute takes advantage of its setting and its relationship to the community in order that students and faculty may use the community as their workshop for learning. Education does not take place in the classroom alone, rather it takes place in the complexity of group relationships both in formal and informal settings. Students at the Institute are given the opportunity to learn the art of living as well as the art of earning a living.

The Institute is comprehensive in its purpose, and it endeavors to meet the needs of four large groups within the area served. First, it offers programs which are terminal in nature to those students who wish to continue their education beyond high school, at the technical-vocational level, to obtain skills and general education which will prepare them for employment.

Second, it offers a wide array of technical and trade courses in the Extension Division which is designed to improve and upgrade employed workers in their present job situations. Third, it offers through the Division of Continuing Education, numerous programs and courses which afford adults an opportunity to continue their education at the elementary and secondary levels. Avocational and personal interest courses are also offered. Fourth, it offers, upon request, a service to local industry by drawing up specialized courses and programs to fit the needs of a specific employer. This is especially helpful to new industry in the area.

Finally, the Institute believes in implementing its concept of "opportunity." In the first instance, it is an "opportunity" to learn. In order to learn profitably, a student must possess a mature mental attitude, a seriousness of educational purpose, and the ability to profit from selected instruction. The Institute is more interested in what a person *can do* rather than in what he *has done*. In the second instance, the Institute has an "opportunity," albeit an obligation, to help the student realize his own potential. Whenever an individual indicates a willingness to learn, Durham Technical Institute feels it has a definite and genuine mission to assist that person to develop his talents to maximum capacity. The Institute is developing everyday educational programs and services based on this philosophy.

It should be remembered that regarding the idea of mutual "opportunity" for both student and Institute, there can be no compromise. There are no half-way measures in requiring a seriousness of purpose and industry on the part of student; neither is there any compromise regarding the quality of instruction and academic standards for the Institute.

ACCREDITATION

The Durham Technical Institute is accredited by the North Carolina State Department of Community Colleges and the State Board of Education as specified in Chapter 115A of the General Statutes of North Carolina. In addition, the curriculum in Dental Laboratory Technology is accredited by the Council on Dental Education of the American Dental Association.

V. A. APPROVAL

The Institute is approved for the training of Veterans, war orphans and children of totally disabled veterans. Veterans education is approved under the provisions of Public Law 89-358 (Veterans Readjustment Benefits Act of 1966), Public Laws 894 and 87-815 (Veterans Vocational Rehabilitation Program). War orphans may obtain benefits under Public Law 634 (War Orphans Educational Assistance Act of 1956 and children of totally disabled veterans under Public Law 88-361. Veterans seeking such benefits should contact their local Veterans Service Office.

NORTH CAROLINA DIVISION OF REHABILITATION APPROVAL

The Institute is approved for the training and education of personnel who qualify under the provisions of the North Carolina Division of Vocational Rehabilitation, Department of Public Instruction. Disabled persons desiring such benefits should contact their local office of the Division of Vocational Rehabilitation.

NOTICE OF INSTITUTE REGULATIONS

The regulations included in this catalog and other official statements of the Durham Technical Institute are binding on all students. The Institute reserves the right to change any of the regulations at any time without prior notice. The Institute has a genuine interest and concern for the integrity of all students. Students are expected to conduct themselves in a mature and responsible manner.

RULES OF CONDUCT

The following rules apply to all students:

1. Each student is held responsible for information published through notices and announcements placed on bulletin boards.

2. Students who negligently lose, damage, destroy, sell, or otherwise dispose of school property placed in their possession, or entrusted to them, will be charged for the full extent of the damage or loss and will be subject to disciplinary action.

3. Under no conditions will alcoholic beverages or narcotics be permitted in or on school property. No one under the influence of alcohol or narcotics will be allowed on school premises. Any violation of this regulation will result in expulsion from the Institute for the first offense.

4. Students who engage in such acts as stealing, gambling, using profane language, engaging in personal combat, or possessing fire arms and other dangerous weapons are liable to disciplinary action.

5. Students are expected to dress appropriately for all occasions. Bare feet, short shorts, undershirts, slacks and other unsightly items of wear will not be allowed. Protective clothing such as aprons may be required for all students in certain laboratories. Students are responsible for seeing that such garments present a clean and neat appearance at all times.

6. Smoking is prohibited in all classrooms, laboratories, shops, library, and other areas with the exception of toilet facilities, student lounge, and passageway areas in the vicinity of lounge sofas and smoking stands.

7. Students should not work in laboratories at any time without the supervision of an instructor. The operation of some equipment is dangerous, and the cost of some materials is expensive.

8. The consumption of food and drink is prohibited in all areas within the building with the exception of the student lounge and in the immediate area of coin-operated dispensing machines.

9. Students are expected to make use of the disposal containers in the classrooms, toilet facilities, halls, shops, and other areas when discarding refuse.

10. Students are to enter administrative offices on business only.

11. The speed limit in all parking lots and driveways is restricted to fifteen (15) miles per hour. Students will not park in those spaces marked RESERVED or VISITORS or along the curbs painted yellow. Students are required to obtain parking decals from the business office and to place them properly on their vehicle upon registration.

12. Outside activities such as football, baseball, softball, horseshoe pitching, and the like will not be conducted within thirty (30) yards of the building.

13. Radios, phonographs, and related items will not be permitted in classrooms, laboratories, and shops during scheduled classes.

14. Holiday periods officially begin at the close of classes on the day preceding the scheduled holiday period. Class schedules will not be rearranged to permit early dismissal nor will social activities be scheduled during class hours. Class or laboratory absences immediately prior to or following a holiday period will be counted as double absences. Such cases are subject to serious disciplinary action.

15. Any student who must alter his final exam schedule is required to obtain approval from the Student Personnel Office.

ADMINISTRATIVE OFFICE HOURS

The institute normally maintains administrative office hours Monday through Friday from 8:00 A.M. to 5:00 P.M. for the Day Program and 6:00 P.M. to 10:00 P.M. Monday through Thursday for the Night Program.

ACADEMIC INFORMATION

ADMISSIONS

General Admission Information

Durham Technical Institute operates under the "open door" admissions policy as established by the North Carolina Department of Community Colleges. Admission to the Institute is open to virtually all persons eighteen years of age or older. Programs of study are offered in Basic Adult Education (Grades 1-8), high school courses leading to a high school diploma, non-credit preparatory courses, General Adult Education courses, and curriculum programs in Vocational-Technical Education in the areas of Engineering Technology, Industrial, Business, and Health Occupations. Vocational-Technical curriculum programs are available to high school graduates or to those who possess a high school equivalency certificate issued by the North Carolina Department of Public Instruction or other State Departments of Public Instruction.

The Admissions process includes the initial application, transcripts of all secondary and post secondary work, aptitude placement tests, a personal interview, and in certain instances a health examination. All applicants should be in reasonably good health with no physical or mental defects which would preclude successful completion of a proposed program of study.

Applicants are encouraged to complete the admissions process as soon as possible. High school students may apply during their senior year. Other persons may apply at any time; however, admission will depend upon the individual situation. All data should be on file at least one month prior to the beginning of the quarter in which the student plans to enroll.

Placement in various programs of instruction is selective, and particular emphasis is placed on vocational and occupational guidance. Through individual counseling, prior to admission, the individual is given assistance in establishing realistic goals. Aptitude placement tests and personal interviews, which are a part of the admissions process, are used to determine the applicant's potential for success in a given program of instruction.

When an evaluation of an applicant's aptitudes, previous educational records, previous experiences, and interests reveals a lack of readiness to enroll in a specific curriculum, he may be advised to take certain non-credit preparatory courses, to enroll in the Fundamental Learning Laboratory, or the Adult Continuing Education Division for high school credit courses, or he may be advised to re-evaluate his occupational and educational goals. When an applicant has sufficiently prepared himself through preparatory studies, he may be admitted into a specific curriculum.

The Institute reserves the right to refuse admission to an applicant if it appears that such action is in the best interest of the institute and/or the applicant.

Application forms and detailed information on instructional programs may be obtained by writing:

Student Personnel Office
Durham Technical Institute
P. O. Box 11307
Durham, North Carolina 27703

SPECIFIC ADMISSION PROCEDURES

1. Application

The applicant should submit a properly completed application form to the Student Personnel Office for the quarter in which he desires to enroll. All admission requirements should be completed one month prior to anticipated enrollment. Early application is recommended to allow adequate time for processing and to increase the opportunity for entry into programs of limited enrollment capacity.

2. Transcripts

Official transcripts are required from the high school and all post-secondary institutions attended. Applicants who have earned equivalency certificates should write Mr. James M. Dunlap, Department of Public Instruction, Raleigh, North Carolina, and request that a letter certifying high school equivalency be forwarded to the Student Personnel Office. Individuals who have neither a high school diploma or an equivalency certificate should contact the local Superintendent of Schools for permission to take the General Educational Development Test (GED). Applicants may prepare for the examination by using the materials available in the Fundamentals Learning Laboratory of the institute. (Inquiries should be directed to the Fundamentals Learning Laboratory).

3. Aptitude Testing

Each applicant is required to take a series of aptitude examinations appropriate to the curriculum area in which he plans to enroll. The test results are used in helping the prospective student to access his various aptitudes and abilities in the light of his interests and desires. This information provides an additional basis for placement of the individual in a suitable curriculum or developmental studies program. In exceptional cases, where an applicant resides out of North Carolina the individual may be permitted to take the aptitude tests (at their expense) at a nearby testing agency. (Applicants must make their own arrangements for such testing). Applicants who are unable to keep an appointment should immediately notify the Student Personnel Office to arrange another appointment.

4. **Individual Interview**

   After initial admissions requirements and aptitude testing are completed, a pre-admission interview is scheduled. The interview will involve a discussion and analysis of the applicant's proposed choice of curriculum in relation to his educational preparation, health factors, work experience, interests, motivation, and career objectives. Applicants who are unable to keep a conference appointment should immediately notify the Student Personnel Office to arrange another appointment.

5. **Acceptance**

   Each applicant is notified verbally and in writing of his admittance to a program of study.

6. **Registration**

   Registration dates are specified for each quarter in the Calendar of Events. Students are assisted in completing registration by their curriculum advisors, essential information is inspected and collected by the Student Personnel Office, and tuition and fees are paid to the Business Office. Students who register after the announced registration date(s) will be charged a $5.00 late registration fee. Late registration is not permitted after the date listed in the Calendar of Events.

Curriculum Admission Requirements

The basic admission requirements to any curriculum is a high school diploma or equivalency education, average or above average high school background, potential aptitude, and good physical and mental health. Some curricula require additional prerequisites:

Civil Engineering Technology, Electronics Engineering Technology, Mechanical Engineering Technology, and Automotive Technology require two units of higher mathematics preparation. One unit of physical science with laboratory is also recommended.

Architectural of Mechanical Drafting require one unit of higher mathematics preparation. One physical science unit with laboratory is also recommended.

Dental Laboratory Technology requires substantive aptitude for finger and hand dexterity.

Applicants who fail to meet aptitude examination minimums may be assigned to a Developmental Studies curriculum to obtain essential pre-curriculum preparation. Students may also enroll in the Fundamentals Learning Laboratory prior to re-taking the appropriate aptitude tests.

DEGREE PROGRAMS

Durham Technical Institute offers an Associate in Applied Science degree in those two-year technical curriculums approved by the North Carolina State Board of Education and the Department of Community Colleges. Associate degree programs vary from six to seven quarters in length and require from a minimum of 108 to 120 quarter hours credit.

DIPLOMA PROGRAMS

Durham Technical Institute will grant diplomas when a student successfully completes any of the occupational trade level curriculums offered by the Institute. These level programs are four quarters (12 months) in length and require approximately 69 quarter hours credit.

CERTIFICATES

Any student enrolled and completing a non-credit class will receive a certificate certifying completion and attendance.

SPECIAL STUDENTS

Special students are those who are enrolled for course credit but not in a curriculum leading to the Diploma or the Associate Degree. Students so enrolled will normally be required to meet the prerequisites for the course work or to demonstrate a necessary level of competence by appropriate tests.

COURSE AUDIT

Students who desire to audit a course (or courses) must secure approval from the Student Personnel Office. Auditors receive no credit and are not required to attend classes or take examinations. Participation in class discussion or laboratory exercises is at the discretion of the instructor. A student who has previously audited a course is ineligible for credit by examination. The fee for auditing is identical to the regular cost of the course.

PROVISIONAL STATUS

Any student who has not completed the admission procedures and requirements is identified as a provisional student. Those students so identified must complete all admission requirements immediately following actual enrollment.

Students transferring from other technical institutes, community colleges, or college are also considered provisional students until they have demonstrated their competence at the Institute.

Those students assigned to non-credit preparatory courses prior to regular enrollment are provisional students until such assignment condition is completed.

ADVANCED STANDING

The Institute permits admission with advanced standing for transfer students from member institutions of the North Carolina Department of Community Colleges and other recognized and approved institutions. The Institute will accept only those credit hours with a grade of "C" or above and the content of such courses must closely parallel those for which credit is sought at the Institute.

An official transcript of the student's previous post secondary work must be submitted well in advance of the proposed date of enrollment. The Student Personnel Office must approve all transfer credits and each application for advanced standing will be evaluated according to the individual situation.

Advanced standing may also be approved upon the basis of previous experience or training by proficiency examination. Students seeking such an examination must contact the appropriate faculty representative to make arrangements for such examination.

FOREIGN STUDENTS

The Institute is authorized under Federal law to enroll nonimmigrant alien students. Students enrolling under this classification will be treated as nonresident with respect to tuition and fees.

WITHDRAWAL REGULATIONS

Any student who wishes to withdraw from the institute or from a specific course shall officially withdraw through the Student Personnel Office.

Any student planning to withdraw should first discuss it with his faculty advisor. The student should then obtain and complete an official withdrawal form which is available in the Student Personnel Office. The form must be signed by the student's respective instructors and his grades entered, then returned to the Student Personnel Office for final approval. Any student must present evidence that he has cleared with the library and the business office before approval can be given.

Students who officially withdraw prior to the end of the first three full weeks of the quarter will receive grades of "W". Students who officially withdraw after the first three full weeks of the quarter will receive grades of "WP" or "WF" depending upon whether the student is passing or failing.

Students who withdraw unofficially will receive a failing grade for all courses and thereby waive the privilege of reentry for one year.

GRADING SYSTEM

Grade reports showing the student's progress will be issued at the end of each quarter. Each course a student completes successfully earns for him both quarter hour credits and grade points.

The cumulative grade point average is determined by dividing the total grade points earned in all courses by the total number of quarter hours credit attempted.

Letter Grade	Numerical Grade	Explanation	Grade Point Equivalent
A	93-100	Superior	4 grade points per quarter hour
B	86-92	Above Average	3 grade points per quarter hour
C	76-85	Average	2 grade points per quarter hour
D	70-75	Below Average	1 grade point per quarter hour
F	0-69	Failure	0 grade points per quarter hour

I—Incomplete. This temporary grade is assigned at the discretion of the instructor for incomplete course work. Hours are not counted for the quarter to which assigned; however, an "I" must be completed during the following quarter or it automatically becomes an "F".

W—Withdrew. Official permission to withdraw from a course within the first three full weeks of the quarter. No grade point penalty is incurred.

WP—Withdrew Passing. Official permission to withdraw from a course with a passing grade within the fourth through the eighth week of the quarter. No grade point penalty is incurred.

WF—Withdrew Failing. Official permission to withdraw from a course with a failing grade within the fourth through the eighth week of the quarter. Failure penalty is incurred in the same manner as for the grade of "F".

Withdrawal from courses is not permitted from the ninth week until the end of the quarter. An unofficial withdrawal during this time period will receive a "WF". Failure penalty is incurred in the same manner as for the grade of "F".

AU—Audit. Enrollment as a non-credit student.

Academic credit may be withheld when a student has not cleared his obligations with the business office or library.

GRADUATION REQUIREMENTS

Degrees and diplomas are conferred at the close of the spring and summer quarters. The summer graduation is an informal event. Each student is responsible for fulfilling all requirements for the degree or diploma he is pursuing. It is also the student's responsibility to officially apply to the Student Personnel Office for his degree or diploma at the beginning of the last quarter before his scheduled graduation. A graduation fee is due at the beginning of the quarter preceding anticipated graduation. This fee is required to cover the costs of individual diplomas and cap and gown apparel.

Any candidate for a degree or diploma must earn an overall grade point average of 2.0 (C) in order to satisfy graduation requirements. The student must clear all outstanding obligations to the business office and library to be eligible for graduation.

All candidates for degrees or diplomas are required to participate in the graduation exercises. Exceptions may be made in unusual circumstances if justifiable reasons are presented in writing to the Student Personnel Office; however, no refunds can be made.

RESIDENCY REQUIREMENTS

Students transferring from other technical institutes, community colleges, colleges, or universities must complete at least one-fourth of the total quarter hours required by Durham Technical Institute, inresidence, to be eligible to receive a Degree or Diploma from Durham Technical Institute.

HONORS

Outstanding students will be honored by placement on the President's List, published after each quarter. To qualify for the President's List, a student must achieve a cumulative 3.0 (B) grade point average.

Graduating students with the highest overall grade point average in both the Associate Degree program and the Diploma program will be given special recognition at the graduation exercises.

SCHEDULE CHANGES

A student must first confer with his faculty advisor about schedule changes. The student must then obtain a drop-add form from the Student Personnel Office. With the approval of the faculty advisor and the Student Personnel Office a student may drop or add courses within the limits outlined below:

Adding of Courses:

Students will not be permitted to add courses after the first five days of classes in a regular quarter or after the first three days of classes in a six weeks summer term.

Dropping of Courses:

Courses dropped prior to the end of the first three full weeks of a regular quarter or the first two full weeks during a summer term will receive a grade of "W". Courses officially dropped within the fourth through the eighth week will receive a grade of "WP" or "WF" depending upon whether the student is passing or failing.

Withdrawal from courses is not permitted from the ninth week until the end of the quarter. An unofficial withdrawal during this time period will receive a grade of "WF".

COURSE LOAD

Students enrolled for 13 or more quarter hours are identified as full-time students. A student may enroll for up to 20 quarter hours depending upon his capability as evaluated by his faculty advisor. No student will be permitted to enroll for more than 20 quarter hours.

Students placed on academic probation may be advised to attempt only a part-time course load. Working students may also be advised to enroll for less than a full-time course load. Students carrying less than a full-time course load cannot graduate within the normal time limit.

ACADEMIC PROBATION AND SUSPENSION

A student whose cumulative grade point average is less than that indicated by the figures below will be automatically placed on probation and may be required to take less than the usual full load of work. A 2.00 grade point average is required for graduation.

If a student is placed on probation for a given quarter and fails to attain the minimum grade point average, he may be suspended for one quarter. However, the progress made during that quarter in relation to preceding work will be the determining factor.

TWO YEAR ASSOCIATE DEGREE PROGRAMS

Cumulative Quarter Hours	Quarter	Minimum Grade Point Average
0-25	1	1.00
26-45	2	1.25
46-65	3	1.50
66-85	4	1.75
86 or more	5, 6, 7	2.00

ONE YEAR DIPLOMA PROGRAMS

Cumulative Quarter Hours	Quarter	Minimum Grade Point Average
0-25	1	1.50
26-45	2	1.75
46 or more	3, 4	2.00

TRANSCRIPTS

Official transcripts of scholastic records (pertaining to your attendance at this institution only) are issued on request. One transcript is furnished free of charge. Additional copies are issued for one dollar ($1.00) each. Payment is to be made with the request and the request is to be directed to the Student Personnel Office.

FAILURE REGULATIONS

A student who fails any required course in his major curriculum must repeat the course until a passing grade is attained to be eligible to graduate with the Associate Degree or the Diploma.

Course Repeat Rule

When a course failure is repeated, the first attempt will be omitted from the computation of the cumulative grade point average and only the second grade, whether "F" or higher, will count. If a course is repeated a third time, both the second and third grades will be used in the computation. All "F's" remain on the permanent record.

READMISSION

Any student suspended for academic reasons may apply for readmission after the lapse of one quarter. Any student readmitted after suspension is automatically on probation.

Any student who voluntarily and officially withdraws from the Institute and later wishes readmittance must contact the Student Personnel Office. Readmission conditions will depend upon the individual circumstances, but generally a student is eligible to return at such time as he can work out an appropriate course schedule.

A former student will not be readmitted until he has met all former and current expense obligations to any program or activity under the administrative jurisdiction of the Institute.

DISMISSAL

A student may be dismissed from the Institute for academic deficiency, misconduct or character defects which are not in the best interest of the student and/or the Institute.

ATTENDANCE

The following policies on attendance have been adopted by the administration and faculty of the Institute.

There is no authorized class cut system, therefore students are expected to attend all sessions of all classes in which they are registered.

Any student who during a quarter incurs in any class or laboratory one unexcused absence in excess of the number of times a class or laboratory meets per week will be declared dropped from the course.

Absences may be excused when caused by personal illness validated by a physician's written statement, serious accident, death in the immediate family, appearance in court, or participation in approved Institute activities. Any class or laboratory absence occurring during the last two days of class preceding a holiday period, indicated on the school calendar, or during the first two days of classes following such holiday period will count as double absences.

Students dropped from any course or dismissed from school due to excessive or unexcused absences may appeal to the Evaluative Committee for reinstatement.

DEVELOPMENTAL STUDIES PROGRAM

The Institute offers a specialized program for students whose level of achievement indicates that an individual approach to the attainment of their educational goals is desirable. Students are selected for this program whose high school record, entrance tests scores, and information gained by interview would indicate the likelihood of difficulty with the course work associated with the curriculum for which applied.

This is a full-time, non-credit program consisting of three quarters. The daily schedule consists of approximately four and one-half contact hours divided equally in the three subject areas of mathematics, English, and social science; Mathematics to include a review of arithmetic, algebra, geometry, and trigonometry; English to include a review of basic English mechanics, sentence and paragraph structure, composition, vocabulary, and reading improvement; Social science designed to orient the student to the principles of post high school learning experience. In this course an attempt is made to broaden the students cultural background as well as assist the student in making an accurate and realistic assessment of himself in relation to a variety of educational goals.

Students may be placed in this program in the first, second, or third quarter level in either of the subject areas consistent with his ability. Upon successful completion of this program students may enroll in the curriculum they desire. Students assigned to the developmental studies program on a part-time basis may enroll in any credit course for which they are prepared. Conversely, students in a diploma or degree program may be enrolled in one or more courses in the developmental studies program.

EXPENSES AND FEES

GENERAL STATEMENT

The legal organization and operation of institutions of the Community College System provides that the distribution of operating costs are shared approximately as follows:

State	65%
Local	15%
Student	20%

The *State* provides administrative and instructional equipment, supplies, materials, salaries, travel costs, clerical expenses, library books, and part of other costs such as postage, printing, and institutional dues. There are several federal acts providing funds or matching funds to qualifying institutions.

The *local board of county commissioners* provide funds to acquire land, erect buildings, and to maintain and operate the buildings and sites.

The *Student* assumes about twenty percent of the cost of operation through the payment of tuition and fees. The non-resident student pays two and one half times the tuition rate of a North Carolina resident student.

TUITION AND FEES

All fees are due and payable at the Business Office on the official day(s) of registration.

There is no required payment nor any tuition deposit necessary prior to the official day(s) of registration. However, students desiring to pay in advance may do so providing arrangements are made with both the personnel and business offices.

All checks and money orders should be made payable to Durham Technical Institute. A check given in payment of expenses which is returned by the bank creates an indebtedness to the Institute and jeopardizes the student's enrollment.

The Institute reserves the right to adjust charges to current costs. Such necessary adjustments with respect to certain charges may be made without prior written notice.

Tuition charges and some of the other fees are created and set by the North Carolina Department of Community Colleges.

The student should arrange well in advance of enrolling to pay all necessary expenses on the day(s) of registration.

TUITION—NORTH CAROLINA RESIDENT

The formula for equating credit-hour equivalency with credit hours for the purpose of assessing tuition charges is as follows:

1 class hour = 1 credit hour
2 laboratory hours = 1 credit hour
3 shop hours = 1 credit hour

$$\frac{\text{Number of Weeks in course} \times \text{Credit Hour Equivalency}}{11} \times \$2.50 =$$

tuition per quarter with a maximum of $32.00 for technical and vocational curriculum students.

FULL-TIME STUDENTS

All vocational, technical, and audit students who are enrolled for *thirteen* (13) or *more* credit hours are charged a maximum of $32.00 per quarter.

PART-TIME STUDENTS

Tuition charge for those enrolling for *twelve* (12) credit hours or *less* (including audit students) is $2.50 times the number of credit hours for which the student is enrolled.

ESTABLISHMENT OF RESIDENCY

A student who is not a legal resident of North Carolina must pay nonresident tuition. A person twenty-one years of age or older is not deemed eligible for the resident rate of tuition unless he has established and maintained his legal residence in North Carolina for at least six months immediately preceding the date of his first enrollment in an institution of higher education in this state. The legal residence of a person under twenty-one years of age at the time of his first enrollment in an institution of higher education in this state is that of his parents, surviving parent, or legal guardian. If the parents are divorced or legally separated, the legal residence of the father will be considered the residence of the student unless custody of the minor has been awarded by court order to the mother or to a legal guardian other than a parent. No claim or residence in North Carolina based upon the residence of a guardian will be considered if either parent is still living, unless the action of the court appointing the guardian precedes the student's first enrollment in an institution of higher education by at least twelve months.

When the resident status of a student is determined at the time of his first enrollment, it may not thereafter be changed except (a) in the case of a non-resident minor student whose parents subsequently establish legal residence in North Carolina; and (b) in the case of a resident student, or his parents, who cease to be residents of North Carolina.

The legal residence of a wife follows that of her husband except that a woman student enrolled in the Institute as a resident may continue as a resident, even though she marries a non-resident.

One does not acquire the status of a resident of North Carolina by reason of being stationed in the State while in military service.

Ownership of property, payment of state or local taxes, or registration of an automobile in the state, apart from legal residence, will not qualify one for the resident rate of tuition.

Students who are in doubt as to their status as a resident should request clarification by writing to or counsulting the Business Manager before registration.

OUT-OF-STATE TUITION (Non-Resident)

Any student whose legal residence is outside of North Carolina will pay tuition fees two and one-half times the in-state resident rate. Students living with relatives in this state whose parents or guardinas live outside North Carolina will pay tuition fees two and one-half times the in-state resident rate.

FULL-TIME NON-RESIDENT

Non-resident students taking thirteen (13) or more credit hours of work will be charged a maximum of $80.00 per quarter tuition for vocational and technical curriculum programs.

PART-TIME NON-RESIDENTS

Those taking twelve (12) or less credit hours of work per quarter will be charged $6.25 times the number of credit hours enrolled.

AUDIT AND SPECIAL STUDENTS, who are non-residents, will be charged at the same rate as the non-resident curriculum student.

ACTIVITY FEE

An Activity Fee of $5.00 per school year is required of all curriculum students enrolled for nine (9) or more credit hours. The fee is charged only in the Fall Quarter and is payable by both resident and non-resident students. This fee is for the purpose of providing athletic and intramural equipment and supplies, student government activities, and a yearbook for each student. This fee is not refundable.

LATE REGISTRATION FEE

To prevent or reduce the problems incident to late registration, registration schedules are set for specific days and certain definite procedures are required.

A student has not completed registration until all of the required steps are taken. It is the student's responsibility to seek and then to follow the necessary procedures.

Any student who fails to complete registration for all classes and to make the required payment of expenses and fees on the prescribed registration day(s) according to the official school calendar will be charged a late registration fee of $5.00. This applies to all students with no exceptions—day, evening, full-time, part-time, special, and audit enrollees.

Those with anticipated financial difficulties should contact the personnel office, in person, well in advance of the registration deadline.

REFUND POLICY

Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds (2/3) of the student's tuition may be refunded if the student withdraws within ten (10) calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered after that time. Tuition refunds will not be considered for tuitions of Five Dollars ($5.00) or less, unless a course or curriculum fails to materialize due to no fault of the student. *Exception*: Those students who are veterans or war orphans receiving benefits under U. S. Code, Title 38, Chapters 33 and 35 may be refunded the *pro rata* portion of the tuition fee not used at the time of withdrawal of such students.

There is no refund on such yearly payments as activity fee, insurance premium fee, graduation fee for cap, gown, and diploma once it is ordered, and special fees such as for late registration.

In all refund cases, the student must initiate his withdrawal through the personnel office. The business office will make the allowable refund only after written request is received from the personnel office.

GRADUATION FEE

A graduation fee of $10.00 will be due and payable to the business office once a curriculum student applies for a degree or diploma and is so notified by the personnel office that he is eligible for graduation. This fee covers the cost of the diploma, the rental of a cap and gown, and any other graduation expense for which the Institute nor the State are eligible to pay. The fee is not payable at any registration period but usually is due during the early portion of the Spring Quarter.

BOOKS AND SUPPLIES

Most of the student's necessary textbooks, supplies, and materials can be acquired from the Institute's book and supply store. Special tools and instruments such as drawing supplies, slide rules, nursing caps, etc., are also available.

The store is operated on a cash basis and there is no refund on books or supplies.

Some textbooks cost as low as $1.25 and as high as $15.00, but the average cost of each book is approximately $6.00. Most students should anticipate spending an average of approximately $30.00 per quarter for books, supplies, and materials. The total cost varies according to the particular program. It would be to the student's advantage to meet each class at least once before attempting to purchase texts and materials. The dental, nursing, drafting, and automotive programs require special items and/or instructional kits which may vary from quarter to quarter.

UNIFORM DEPOSIT (Nursing Students Only)

Nursing students enrolling for their first quarter (or re-enrolling) are required to make a $20.00 uniform deposit. This deposit is payable, along with the other required fees and tuition, at the business office during the day(s) of registration.

The uniform deposit entitles each nursing student to the use of four (4) sets of uniforms. Nursing caps are not included but can be acquired from the Institute's book and supply store.

Should the student complete the requirements for graduation and return all uniforms in satisfactory condition, the $20.00 will be paid to the State to cover the required cost of taking the State Nursing Board Examination. In this case there is no refund. However, the deposit is refundable to those who leave school and are not eligible to take the state examinations and who return all uniforms in satisfactory condition.

INSURANCE

A student may become covered for expenses incurred for accidents associated with school activities for $2.00 per year. This group insurance premium charge is optional. Students desiring this insurance may make payment to the Business Office upon registering for the Fall Quarter. It is not refundable.

The Institute and the State of North Carolina do not carry insurance to cover any student for accidents or otherwise.

TYPICAL FALL QUARTER EXPENSES

	N. C. Resident	Non-Resident
Tuition	$32.00	$ 80.00
Activity Fee	5.00	5.00
Insurance (Optional)	2.00	2.00
Books and Supplies (Estimate)	30.00	30.00
TOTAL	$69.00	$117.00

TYPICAL SPRING QUARTER EXPENSES

	N. C. Resident	Non-Resident
Tuition	$32.00	$ 80.00
Books and Supplies	30.00	30.00
Graduation Fee	10.00	10.00
TOTAL	$72.00	$120.00

Students in the curriculums or programs listed below will have additional expenses as indicated:

Practical Nursing—$20.00 (Uniform Deposit)—1st Quarter
Dental Laboratory Technology—$200.00 (Instructional Kits)*—($80.00 1st Quarter; $80.00 2nd Quarter; $40.00 6th Quarter).
Auto Mechanics—$150.00 (Tools)*—2nd Quarter
Automotive Technology—$150.00 (Tools)*—2nd Quarter

* These are approximate figures.

STUDENT PERSONNEL SERVICES

COUNSELING AND GUIDANCE

Effective counseling is an ongoing process that begins with the placement interview and continues throughout the student's enrollment. It is not confined to the narrow role of helping serious "problem" cases, although every effort is made to help students who have academic or personal problems; rather, it is directed toward helping all students develop their individual capabilities to the fullest extent. The Institute recognizes that the student can develop personal initiative and responsibility for planning his future only to the extent that he has knowledge about himself and the goals he has set.

ORIENTATION

New students enrolling in the fall quarter participate in student orientation. This program aims to acquaint the student with the Institute's philosophy, policies, and regulations. Assemblies, open discussions, lectures, and student handbooks help prepare the student for beginning studies at the Institute.

FACULTY ADVISORS

At the time of initial enrollment, each student is assigned a faculty advisor in his major curriculum area. The advisor assists the student in planning his program and in selecting appropriate courses. He is available throughout the student's enrollment to offer advice and assistance.

Each student has full responsibility for keeping account of his progress in his curriculum program. This includes being aware of his cumulative grade point average, course failures, courses repeated, and graduation requirements.

STUDENT HOUSING

Durham Technical Institute has no dormitories or other boarding facilities. Students who live too far away to commute daily must secure living quarters in the Durham area. Although the Institute assumes no responsibility for housing, it maintains a list of approved rooms and apartments. Students are invited to utilize this list in their search for housing.

SELECTIVE SERVICE DEFERMENT

Except as indicated below, students at the Institute are deferred from the draft for the length of time required to complete their programs of study, provided they are enrolled full time (minimum of 13 quarter hours) and doing satisfactory work in a regular curriculum or in the Developmental Studies Program in preparation therefore. Deferment forms will be sent to Selective Service boards upon request of the student.

This draft deferment does not apply to students who have had one year or more of post high school study elsewhere unless they are pursuing the same curriculum.

The deferment status of any student who at any time withdraws from school, registers for less than 13 quarter hours, or fails to make satisfactory progress is subject to change. Determination of a student's status is at the discretion of his Local Selective Service Board.

STUDENT CENTER

The Student Center, centrally located in the building, is a gathering place for students. It has a snack bar which offers a variety of soft drinks, along with coffee, candy, and sandwiches. Tables and chairs are provided so that students may relax and eat, chat, or watch television. The center is open from 7:30 a.m. until 10:00 p.m. daily, Monday through Thursday, and 7:30 a.m. until 5:00 p.m. on Friday.

STUDENT GOVERNMENT

The Student Association was first organized in the 1965-66 academic year. The organization and function of an effective Student Association is dependent entirely upon student interest and initiative. The purpose of the Student Association is to promote interest in student activities and to provide the experience of participation in self-government.

The Representative Council is composed of elected representatives from each curriculum. Officers of the council may be elected by the council members or by the student body at large.

ATHLETICS

A formal athletic program is not offered at the Institute. The Institute sponsors organized sports through the Durham Recreation Department. A limited supply of sports equipment such as footballs, softballs, bats, horseshoes and basketballs are available at the Student Center. These items may be checked out for informal recreation.

STUDENT PUBLICATIONS

The Student Association publishes a yearbook. This activity operates as a division of the student government and offers experience in editing, art, photography, and business management for interested students. Further publications will depend upon the growth of the Institute and student interests.

PLACEMENT

The Institute offers assistance to graduates seeking jobs. The Student Personnel Office maintains a file of job opportunities, which is available to all students. Prospective employers, are encouraged to visit the Institute and discuss employment opportunities with students.

Students are also urged to utilize the services of the Employment Security Commission which is active in job placement throughout the nation.

INSURANCE

The Institute is not responsible nor financially liable for accidents and injury to persons or property unless gross negligence can be legally proven.

Students are not required to be covered by an insurance policy, but they are encouraged to take the accident insurance under the Institute's group plan. This plan is offered by an ethical and reliable insurance firm for $2.00 per school year. This premium is payable to the Business Office during registration for the Fall Quarter of each year. Students enrolling for the first time during any other period of the year may pay the same $2.00 premium and be covered by the policy for the remaining portion of the school year.

As long as one is officially enrolled in school, the accident policy covers the individual for one hour's travel to school, during the school day, and one hour's travel after each school day.

Students planning to participate in organized intramural and team athletics are especially requested to take the school-sponsored accident insurance policy. Those who are enrolling for work in certain laboratories such as automotive, dental, electrical, and mechanical are also urged to become covered by accident insurance.

FINANCIAL AID

Scholarships

Dental Laboratory Technology students may compete for 11 scholarships offered through the American Fund for Dental Education. Four are for $2,000 each, two for $500, and one for $650.

Practical Nurse Education students may apply for scholarships through the National Licensed Practical Nurses Education Foundation, Inc.

Social Security Benefits

Some students may qualify for financial assistance through their parent's Social Security benefits. Those seeking such aid should first contact their local Social Security office.

Vocational Rehabilitation Assistance

Certain handicapped students are eligible for aid administered through the Division of Vocational Rehabilitation, N. C. Department of Public Instruction. Those who seek such aid should make application to the local Division of Vocational Rehabilitation.

Long-Term Loans

Long-term loans are generally awarded upon the basis of need or scholarship. Information may be obtained at the Student Personnel Office.

National Vocational Student Loan Insurance Act of 1965

Financial assistance is available under the National Vocational Student Loan Insurance Act of 1965, administered by the College Foundation, Inc. Legal residents of North Carolina who have been accepted for enrollment or those who expect to enroll for the second year may apply. Students may borrow up to $1,000 per year or up to an aggregate of $2,000 for a total of two years. Repayment of principal and interest at the rate of 3½% begins nine months after the student ceases to carry a full time courseload. Minimum repayment shall be $360. per year payable on a monthly basis. The repayment period may not exceed six years.

James E. and Mary Z. Bryan Foundation

The Bryan Foundation, administered by the College Foundation, Inc., provides limited funds for loans up to $1,000 per year, with an aggregate of $2,000. Interest is ½ of 1% while in school and 3½% during the repayment period. Repayment begins four months after the student leaves school.

Vocational Student Loan Fund

The Vocational Student Loan Fund was established by the State Board of Education for deserving North Carolina residents. Students who can establish their need for finances may borrow up to $300 annually. The interest rate is 3½% and repayment begins one year following graduation. The loan must be repaid in five years.

Durham Technical Institute Loan Fund

Small loans are available from an Institutional loan fund, made possible by donations from local business and industry. The maximum loan may not exceed the cost of tuition and fees. This fund is primarily available to those students whose shortage of funds is a temporary condition. No interest is charged.

Work-Study Program

A limited number of full time students may be employed up to a maximum of 15 hours per week by the Institute under the Work-Study Program. Earnings may not exceed $45.00 per month for commuting students or $60.00 per month for students living more than 30 miles from the Institute who find it necessary to live away from home in order to attend. Work-Study funds are made available through the Vocational Education Act of 1963.

Veterans Education Benefits

Durham Technical Institute has been approved for students who wish to attend under the new "Cold War G.I. Bill."

Veterans who plan to attend under any of the various veterans' training laws and dependents of deceased or disabled veterans who expect to enroll under the War Orphans Educational Assistance Act should contact their Veterans Service officer in advance of registration.

A person claiming benefits and eligibility to receive a monthly subsistence check should be prepared to finance in full his expenses for the first two to three months. When full eligibility is established, a subsistence check should be expected about the 20th of each month.

The contact hours shown in the catalog are minimal. It is a policy of this institution to permit students to enroll in additional subjects and laboratory work beyond those shown in the catalog.

When in any quarter the total weekly contact hours listed are fewer than twenty-five hours in a technical curriculum and fewer than thirty hours in a vocational trade curriculum, a student may enroll on request for additional instructional hours deemed by the institution to be consistent with the program and appropriate to the student to make up twenty-five hours per week in a technical curriculum or sufficient hours of attendance to make up thirty hours per week in a vocational trade curriculum.

LIBRARY SERVICES

The Library contains approximately 6500 volumes and subscribes to over 100 periodicals. Library materials are selected by faculty and staff members in cooperation with the librarian. These materials are primarily related to the programs offered by the school; however, there is a small, but fairly representative, collection of books in other fields of knowledge.

A short orientation period in library procedures and an introduction to some of the basic reference materials of the Library are offered to new students.

Library materials are primarily for use by students and faculty members at the Institute, but they are also available for use by the general public.

PROGRAMS OF STUDY

Durham Technical Institute offers the following programs of study:

- Associate in Applied Science Degree Program
  - Accounting
  - Business Administration
  - Civil Engineering Technology
  - Dental Laboratory Technology
  - Drafting and Design Technology
  - Electronics Engineering Technology
  - Secretarial Science with Option of
    - Executive
    - Legal
    - Medical
    - Technical-Engineering
  - Automotive Technology

- Diploma Programs
  - Architectural Drafting
  - Automotive Mechanics
  - Mechanical Drafting
  - Practical Nurse Education

- Certificates Non-Curricular Programs
  - Adult Basic Education
  - Community Services
  - General Adult Education
  - Industrial Services
  - Special Education

TECHNICAL EDUCATION

TECHNICAL EDUCATION

The basic objective of Technical Education is to prepare qualified technicians in pre-selected fields. The technical programs emphasize the knowledge and understanding of basic principles of science rather than the acquisition of manual skills. Although similar in nature to the professional engineering curriculum offered by the senior institution, programs of instruction are less extensive in time and content.

Technical occupations, broadly defined, are those which usually require a high degree of specialized knowledge, a broad understanding of operational procedures, and the ability to organize, coordinate, and supervise the work of others. The Institute prepares students for entry into a number of semi-professional positions of a particular field rather than for one specific job.

Technical programs of study are designed to prepare students to earn a living as technical personnel in industry, business, health occupations or as owner-operators of their own establishment. These programs recognize that general education subjects take on occupational significance in community living, and that the technical subjects provide the freedom of action resulting from occupational competency.

Course credit earned in the various technical programs is not intended for transfer to four year colleges or universities. The ultimate objective of a technical program is employment and further growth through occupational experience. The Associate in Applied Science Degree is conferred to those students successfully completing a technical education program.

ACCOUNTING

Accounting is one of the fastest growing employment fields in America today, and the job outlook for good accountants seems bright for many years to come. These opportunities are the result of the tremendous business and industrial expansion in all parts of the country. Because of this emphasis, there is a growing need for trained people in the area of accounting to help managers keep track of a firm's operation. The Accounting Curriculum is designed to fill this need by offering students the necessary accounting theories and skills for entry into the accounting profession.

The specific objectives of the Accounting Curriculum are to develop the following competencies:

1. Understanding of the principles of organization and management in business operations.
2. Understanding of the fundamentals of accounting and analysis of financial statements.
3. Understanding and skill in effective communications for business.

The duties and responsibilities of an accountant vary somewhat in different firms. Some of the things an accountant might do are: record transactions, render periodic reports, maintain cost records, make special reports, complete tax returns, audit the books, and advise management in areas of financial affairs.

The graduate of the Accounting Curriculum may qualify for various jobs in business and industry leading to any of the following accounting positions: accounting clerk, payroll clerk, accounting machine operator, auditor, and cost accountant. This training plus further experience should prepare them to become office managers, accounting supervisors, and to fill other responsible positions in a business firm.

REPRESENTATIVE POSITIONS PREPARED FOR

Accountant
Bookkeeper
Cost Accountant
Public Accountant
Office Manager
Machine Processing Accountant
Tax Accountant
Manager, General

			Hours Per Week		Quarter Hours
			Class	**Lab.**	**Credit**
FIRST QUARTER					
T-ENG	101	Grammar	3	0	3
T-BUS	102	Typewriting (or Elective)	2	3*	3
T-MAT	110	Business Mathematics	5	0	5
T-BUS	101	Introduction to Business	5	0	5
T-ECO	102	Economics	3	0	3
			18	3	19
SECOND QUARTER					
T-ENG	102	Composition	3	0	3
T-BUS	120	Accounting	5	2	6
T-ECO	140	Economics	3	0	3
T-BUS	115	Business Law	3	0	3
T-BUS	123	Business Finance	3	0	3
			17	2	18
THIRD QUARTER					
T-ENG	103	Report Writing	3	0	3
T-BUS	124	Business Finance	3	0	3
T-BUS	110	Office Machines	2	2	3
T-BUS	121	Accounting	5	2	6
T-BUS	116	Business Law	3	0	3
			16	4	18
FOURTH QUARTER					
T-ENG	204	Oral Communication	3	0	3
T-EDP	104	Intro. to Data Processing Systems	3	2	4
T-BUS	222	Accounting	5	2	6
————	———	Elective	6	0	6
			17	4	19

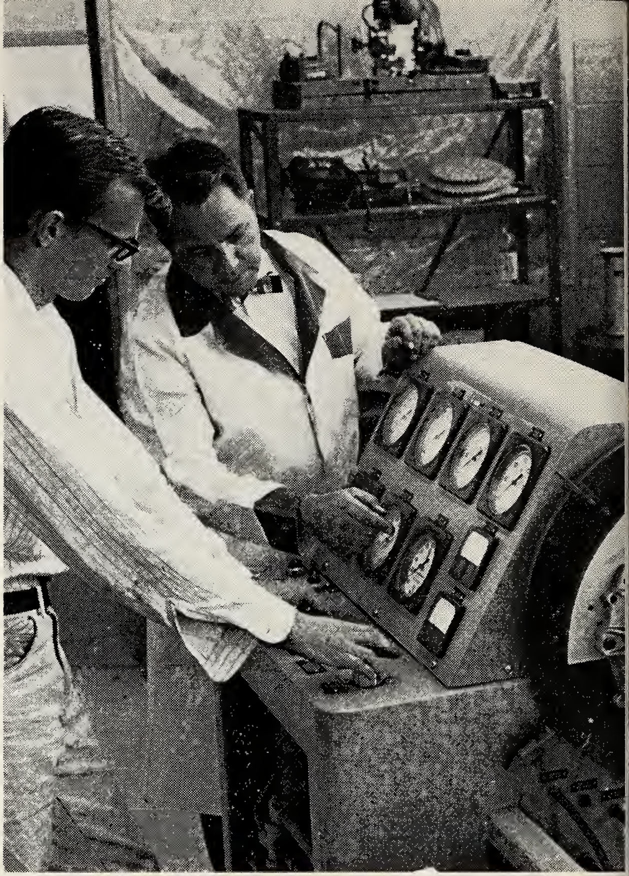
FIFTH QUARTER

T-ENG	206	Business Communication	3	0	3
———	——	Elective	3	0	3
T-BUS	223	Accounting	5	2	6
T-BUS	225	Cost Accounting	3	2	4
T-BUS	235	Bus. Management	3	0	3
			17	4	19

SIXTH QUARTER

———	——	Social Science Elective	3	0	3
T-BUS	229	Taxes	3	2	4
T-BUS	269	Auditing	3	2	4
———	——	Elective	4	0	4
			13	4	15

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.



AUTOMOTIVE TECHNOLOGY

There is a growing need for transportation maintenance technicians to rebuild, test and service automotive units including diesel engines. The Service Managers Committee of the American Motors Association estimates that 45 to 50 thousand mechanics and technicians are needed each year to keep service shops properly manned. However, fewer than 10,000 recruits are entering the profession annually.

North Carolina, in its tremendous industrial growth, feels the need for more highly trained and skilled personnel in the automotive and transportation field. Industry is dependent upon transportation for movement of raw materials and finished products. Automotive units and diesel engines are prime movers, and require technicians to service and maintain them for proper operation. This curriculum has been developed to train technicians for the transportation maintenance field.

The Automotive Technology Curriculum is designed for students who are interested in work on or related to motor vehicles. This curriculum provides for entrance into technician level employment areas. Principles of design and operation provide for an exact appreciation of the functions of automotive units. Correlated laboratory work develops ability to execute or supervise diagnostic tests and repairs.

The automotive transportation and maintenance technician has a knowledge of laboratory procedures in automotive and associated areas. He is capable of operating laboratory equipment and instruments to perform a variety of tests on materials and equipment. Included also may be performance testing of new materials and equipment. As a diagnostician, he may, with the use of instruments, locate automotive or electrical defects and arrange for repair. He is often required to record data, write reports and make recommendations.

REPRESENTATIVE POSITIONS PREPARED FOR

Service Manager
Transmission Technician
Automotive Electrical Technician
Diesel Service Technician
Automotive Engineer Aide
Automotive Machinist
Parts Manager
Manufacture Technical Representative

			Hours Per Week		Quarter Hours
			Class	Lab.	Credit
FIRST QUARTER					
T-MAT	100	Pre-Technical Mathematics	5	0	5
E-ENG	101	Grammar	3	0	3
T-DFT	101	Technical Drafting	1	6	3
T-MECH	100	Shop Practice	1	6	3
T-PHY	100	Science of Measured Values	3	0	3
			13	12	17
SECOND QUARTER					
T-MAT	101	Technical Mathematics	5	0	5
T-PHY	101	Physics: Properties of Matter	3	2	4
T-DFT	111	Blueprint Reading and Sketching	0	3*	1
T-MEC	101	Machine Processes	0	6*	2
T-AUT	111	Internal Combustion Engines	4	3*	5
			12	14	17
THIRD QUARTER					
T-ENG	102	Composition	3	0	3
T-MAT	102	Technical Mathematics	5	0	5
T-PHY	103	Physics: Electricity	3	2	4
T-MEC	102	Machine Processes	0	6*	2
T-AUT	112	Internal Combustion Engines	4	6*	6
			15	14	20
FOURTH QUARTER					
T-ENG	103	Report Writing	3	0	3
T-PHY	102	Physics: Work, Energy, Power	3	2	4
T-PHY	209	Thermodynamics	3	0	3
T-AUT	121	Automotive Electrical Systems	3	3*	4
T-AUT	125	Chassis Systems	2	6*	4
			14	11	18

FIFTH QUARTER

T-ENG	204	Oral Communications	3	0	3
T-CHM	101	Chemistry	4	2	5
T-MEC	235	Hydraulics and Pneumatics	3	3*	4
T-AUT	221	Power Trains	3	6*	5
T-AUT	213	Diesel Engines	2	3*	3
			15	14	20

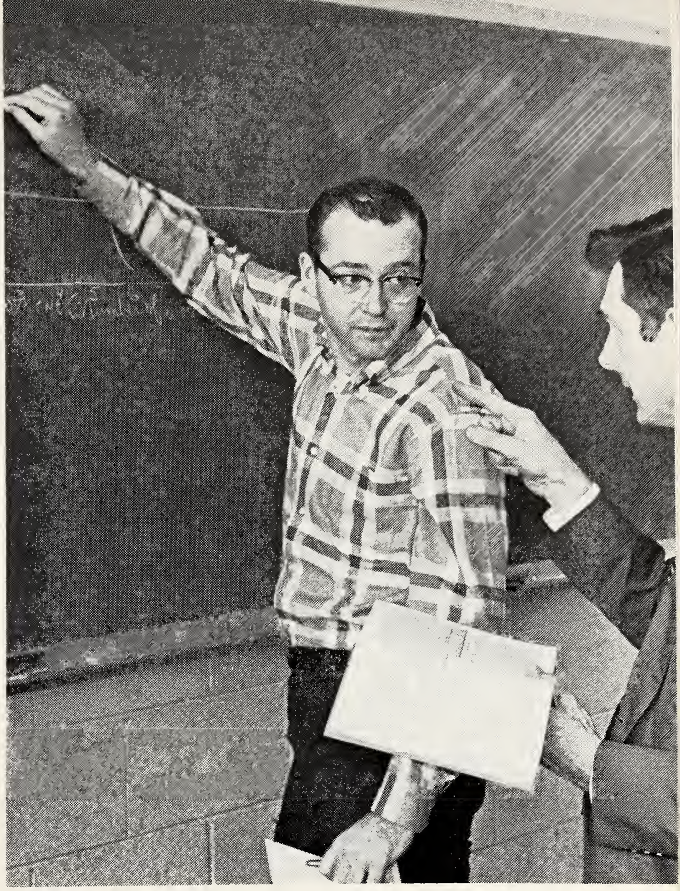
SIXTH QUARTER

————	———	Social Science Elective	3	0	3
T-AUT	226	Braking Systems	2	3*	3
T-AUT	231	Diagnosis and Testing	2	6*	4
————	———	Electives			5
			7	9	15

SEVENTH QUARTER

————	———	Social Science Elective	3	0	3
T-AUT	240	Motor Vehicle Laws and Regulations	3	0	3
T-AUT	232	Diagnosis and Testing	2	6*	4
————	———	Electives			5
			8	6	15

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.



BUSINESS ADMINISTRATION

In North Carolina the opportunities in business are increasing. With the increasing population and industrial development in this State, business has become more competitive and automated. Better opportunities in business will be filled by students with specialized education beyond the high school level. The Business Administration Curriculum is designed to prepare the student for employment in one of many occupations common to business. Training is aimed at preparing the student in many phases of administrative work that might be encountered in the average business.

The specific objectives of the Business Administration Curriculum are to develop the following competencies:

1. Understanding of the principles of organization and management in business operations.
2. Understanding our economy through study and analysis of the role of production and marketing.
3. Knowledge in specific elements of accounting, finance, and business law.
4. Understanding and skill in effective communication for business.

5. Knowledge of human relations as they apply to successful business operations in a rapidly expanding economy.

The graduate of the Business Administration Curriculum may enter a variety of career opportunities from beginning sales person or office clerk to manager trainee. The duties and responsibilities of this graduate vary in different firms. These encompassments might include: making up and filing reports, tabulating and posting data in various books, sending out bills, checking calculations, adjusting complaints, operating various office machines, and assisting managers in supervising. Positions are available in businesses such as advertising; banking; credit; finance; retailing; wholesaling; hotel, tourist, and travel industry; insurance; transportation; and communications.

REPRESENTATIVE POSITIONS PREPARED FOR

Manager, general
Director, personnel
Manager, Office
Accountant, cost
Bookkeeper
Accountant, general
Manager, Sales
Representative, Sales

			Hours Per Week Class	Lab.	Quarter Hours Credit
FIRST QUARTER					
T-ENG	101	Grammar	3	0	3
T-BUS	102	Typewriting (or Elective)	2	3*	3
T-MAT	110	Business Mathematics	5	0	5
T-BUS	101	Introduction to Business	5	0	5
T-ECO	102	Economics	3	0	3
			18	3	19
SECOND QUARTER					
T-ENG	102	Composition	3	0	3
T-BUS	120	Accounting	5	2	6
T-ECO	104	Economics	3	0	3
T-BUS	115	Business Law	3	0	3
T-BUS	123	Business Finance	3	0	3
			17	2	18
THIRD QUARTER					
T-ENG	103	Report Writing	3	0	3
T-BUS	124	Business Finance	3	0	3
T-BUS	110	Office Machines	2	2	3
T-BUS	121	Accounting	5	2	6
T-BUS	116	Business Law	3	0	3
			16	4	18
FOURTH QUARTER					
T-ENG	204	Oral Communication	3	0	3
T-BUS	232	Sales Development	3	0	3
T-EDP	104	Intro. to Data Processing Systems	3	2	4
T-BUS	339	Marketing	5	0	5
———	——	Elective	3	0	3
			17	2	18

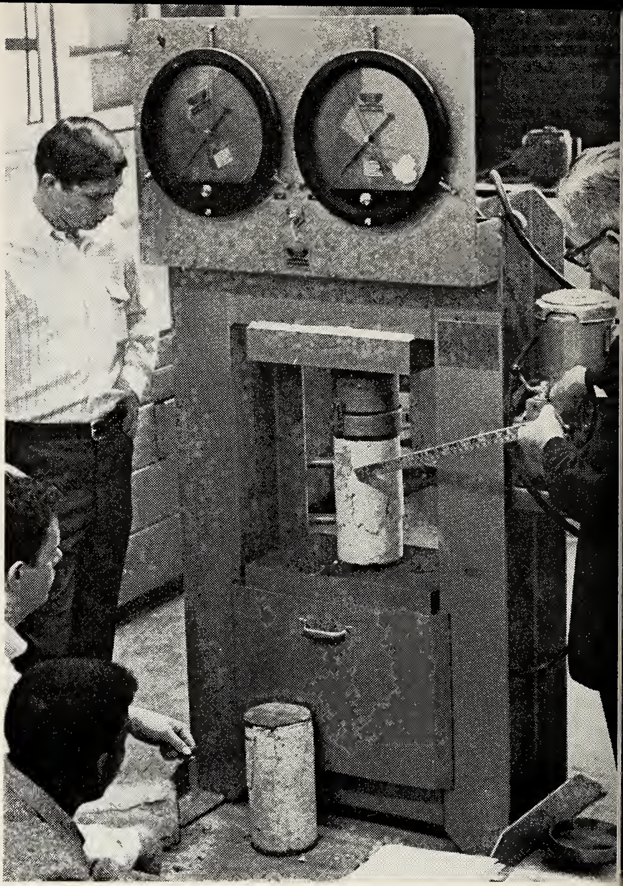
FIFTH QUARTER

T-ENG	206	Business Communication	3	0	3
————	——	Social Science Elective	3	0	3
T-BUS	243	Advertising	3	2	4
T-BUS	235	Business Management	3	0	3
————	——	Elective	3	0	3
			15	2	16

SIXTH QUARTER

———	———	Social Science Elective	3	0	3
T-BUS	229	Taxes	3	2	4
T-BUS	272	Principles of Supervision	3	0	3
T-BUS	271	Office Management	3	0	3
————	——	Elective	6	0	6
			18	2	19

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.



CIVIL ENGINEERING TECHNOLOGY

Construction technicians perform many of the planning and supervisory tasks necessary in the construction of highways, bridges, power plants, dams, missile sites, airfields, water and sewage treatment plants, industrial buildings and utilities. In the planning stages of construction they may be engaged in estimating costs, ordering materials, interpreting specifications, computing earthwork cuts and fills and storm drainage requirements, surveying or drafting. Once the actual construction work has begun, many technicians perform supervisory functions. Some may be responsible for seeing that construction activities are performed in proper sequence, and for inspecting the work, as it progresses, for conformance with blueprints and specifications.

The expanding construction industry needs up-to-date technically trained personnel. The objective of the Civil Engineering Technology program is to train technicians who will work with skilled craftsmen and engineers in performing the various functions included in the broad field of construction. This curriculum provides the necessary basic background and related theory with specific skills needed in the construction field. Basic construction knowledges and skills are supplemented by courses in Communicative

Skills, Economics, Industrial Organization and Management, and Human Relations.

The large and varied construction industry provides excellent opportunities for the individual with ability and training. Depending on the organization and the size of the construction project, the technician may work directly with an engineer or with skilled craftsmen or he may function as a liaison between them.

An individual upon graduating from this program should qualify for various jobs such as Instrument Man, Party Chief, Quantity Survey Man, Material Tester (Laboratory Testing), Expediter, Field Clerk, Materials Man, Construction Equipment and Materials Salesman, and Field Draftsman. Upon gaining sufficient construction experience, the technician has the opportunity of advancing into positions such as Contractor, Construction Superintendent, Engineering Aide, Surveyor, Estimator, Inspector on Construction Jobs, and City Building Inspector.

REPRESENTATIVE POSITIONS PREPARED FOR

General Contractor
Estimator
Engineering Aide
Land planner

Building Inspector
Transitman
Contractors Aide
Materials Tester

			Hours Per Week Class	Hours Per Week Lab.	Quarter Hours Credit
FIRST QUARTER					
T-MAT	100	PreTech Mathematics	5	0	5
T-ENG	101	Grammar	3	0	3
T-DFT	101	Technical Drafting	1	6*	3
T-MEC	100	Shop Practice	1	6*	3
T-PHY	100	Measured Values	3	0	3
			13	12	17
SECOND QUARTER					
T-MAT	101	Technical Mathematics	5	0	5
T-PHY	101	Properties of Matter	3	2	4
T-ENG	102	Composition	3	0	3
T-DFT	102	Technical Drafting	0	6*	2
T-CIV	100	Intro. to Construction Technology	2(3)	0	2(3)
			13 or 14	8	16 or 17
THIRD QUARTER					
T-CIV	101	Surveying	2	6*	4
T-MAT	102	Technical Mathematics	5	0	5
T-PHY	102	Works, Energy, and Power	3	2	4
T-ENG	103	Report Writing	3	0	3
			13	8	16

FOURTH QUARTER

T-MAT	103	Technical Mathematics	5	0	5
T-PHY	103	Electricity	3	2	4
T-CIV	114	Statics	5	0	5
T-CIV	102	Surveying	2	6*	4
			15	8	18

FIFTH QUARTER

T-CIV	216	Strength of Materials	5	0	5
T-CIV	201	Properties of Engineering Materials	2	3*	3
T-CIV	103	Surveying	2	6*	4
T-CIV	217	Construction Methods and Equipment	3	2	4
T-ENG	204	Oral Communications	3	0	3
			15	11	19

SIXTH QUARTER

T-CIV	218	Plain Concrete	3	3*	4
T-CIV	220	Construction Planning	2	3*	3
T-CIV	202	Properties of Soils	2	3*	3
T-CIV	223	Code, Contracts, and Specifications	2	0	2
———	——	Social Science Elective	3	0	3
———	——	Electives			(3 to 5)
			12	9	18 to 20

SEVENTH QUARTER

T-CIV	225	Construction Estimates and Costs	3	6*	5
T-CIV	227	Construction Roads and Pavements	3	2	4
———	——	Social Science Elective	3	0	3
———	——	Elective			3
			9	8	15

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

DENTAL LABORATORY TECHNOLOGY

The dental laboratory technician might best be defined as a member of the dental health team. With his talent and skill he is able to provide an essential auxiliary service to the profession of dentistry. With the increased population growth throughout the country, there has been an increased demand placed on the dental profession. Where only a few years ago it was possible for the practicing dentist to perform all the work required to meet the needs of the patient, today he must rely on technically trained subsidiary assistants such as the dental laboratory technician, dental hygienist, and others.

The work of the dental laboratory technician, as a member of the dental health team, is confined to the dental laboratory. He is, perhaps, the only member of the team who does not come in contact with the patient. Yet, through his work, he is able to contribute much to the physical and mental health of the patient. He may also be employed as a salesman of dental materials or work as a technical representative for a manufacturer of dental equipment and supplies.

The dental laboratory technician fabricates dental prosthetic appliances from written prescriptions and impressions supplied by the dentist. He works with various specialized hand instruments and machines and uses materials such as gypsum compounds, precious and semi-precious metals, acrylic plastic compounds, ceramic clays, and waxes.

REPRESENTATIVE POSITIONS PREPARED FOR

Dental Laboratory Owner	Sales Representative
Dental Ceramist	Dental Technician Metal
Technician, Crown and Bridge	Orthodontic Technician
Laboratory Manager	

			Hours Per Week Class	Hours Per Week Lab.	Quarter Hours Credit
FIRST QUARTER					
T-MAT	110	Business Mathematics	5	0	5
T-ENG	101	Grammar	3	0	3
T-DEN	101	Dental Anatomy and Physiology	2	12*	6
T-DEN	104	Dental Materials	1	6*	3
T-DEN	106	Complete Denture Techniques	1	3*	2
			12	21	19
SECOND QUARTER					
T-ENG	102	Composition	3	0	3
T-DEN	111	Dental Metallurgy	3	0	3
T-DEN	107	Complete Denture Techniques	1	9*	4
T-DEN	113	Cost Metallic Inlay and Crown Techniques	2	12*	6
			9	21	16
THIRD QUARTER					
T-DEN	115	Crown and Bridge Techniques	1	9*	4
T-DEN	108	Partial Denture Techniques	2	9*	5
T-ENG	103	Report Writing	3	0	3
T-CHM	101	Chemistry	4	2	5
			10	20	17
SUMMER QUARTER					
T-PHY	101	Physics	3	2	4
T-DEN	116	Crown and Bridge Techniques	1	12*	5
T-DEN	109	Partial Denture Techniques	1	9*	4
			5	23	13
FOURTH QUARTER					
T-DEN	201	Advanced Denture with Cast Base Techniques	2	9*	5
T-DEN	204	Partial Dentures Techniques	1	6*	3
T-DEN	207	Advanced Crown and Bridge Techniques	1	6*	3
T-ENG	204	Oral Communications	3	0	3
			7	21	14
FIFTH QUARTER					
———	——	Social Science Elective	3	0	3
T-DEN	205	Partial Denture Techniques	1	12*	5
T-DEN	211	Ceramic Techniques	2	9*	5
T-DEN	213	Dental Laboratory Practice	1	3*	2
			7	24	15

SIXTH QUARTER

T-DEN	209	Jurisprudence and Ethics Seminar	3	0	3
————	——	Social Science Elective	3	0	3
T-DEN	212	Advanced Ceramic Techniques	2	12*	6
T-DEN	214	Advance Dental Laboratory Practices	1	6	3
			9	18	15

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

ELECTRONICS ENGINEERING TECHNOLOGY

The field of electronics has developed at a rapid pace since the turn of the century. For many years the major concern of electronics was in the area of communications. Developments during World War II and in the period since have revolutionized production techniques. New industries have been established to supplement the need and demand for electronics equipment.

Many opportunities exist for men and women with a technical education in electronics. This curriculum provides a basic background in electronic related theory with practical applications of electronics for business and industry. Courses are designed to develop competent electronics technicians who may take their place as an assistant to an engineer, or as a liaison between the engineer and the skilled craftsman.

The electronics technician may start in one or more of the following areas: research, design, development, production, maintenance or sales. He may be an assistant to an engineer, an engineering aide, laboratory technician, supervisor or equipment specialist. His training is similar to that of an engineer, but in less depth and more practical in application. He can function as a liaison between an engineer and the skilled craftsman.

REPRESENTATIVE POSITIONS PREPARED FOR

Electronics Technician
Instrumentation Engineer
Manufacturer Representative
Computer Technician
Production Engineer
Technical Writer
Laboratory Technician
Design Tester
Customer Engineer
Technical Sales and Promotion

FIRST QUARTER

			Hours Per Week		Quarter Hours
			Class	Lab.	Credit
T-MAT	100	PreTechnical Mathematics	5	0	5
T-ENG	101	Grammar	3	0	3
T-DFT	101	Technical Drafting	1	6*	3
T-MEC	100	Shop Practice	1	6*	3
T-PHY	100	Science of Measured Values	3	0	3
			13	12	17

SECOND QUARTER

T-MAT	101	Technical Mathematics	5	0	5
T-PHY	101	Physics: Properties of Matter	3	2	4
T-DFT	102	Technical Drafting	0	6*	2
T-ELC	101	Fundamentals of Electricity	4	4 or 6*	6
			12	12 or 14	17

THIRD QUARTER

T-MAT	102	Technical Mathematics	5	0	5
T-ENG	102	Composition	3	0	3
T-PHY	102	Physics: Work, Energy, Power	3	2	4
T-ELC	102	Fundamentals of Electricity	4	4 or 6*	6
			15	6 or 8	18

FOURTH QUARTER

T-MAT	103	Technical Mathematics	5	0	5
T-ENG	103	Report Writing	3	0	3
T-ELN	105	Control Devices	5	4 or 6*	7
T-ELN	101	Electronic Instruments and Measurements	1	4 or 6*	3
			14	8 or 12	18

FIFTH QUARTER

T-MAT	201	Technical Mathematics	5	0	5
T-ENG	204	Oral Communications	3	0	3
T-PHY	104	Physics: Light and Sound	3	2	4
T-ELN	205	Applications of Vacuum Tubes and Transistors	5	4 or 6*	7
			16	6 or 8*	19

SIXTH QUARTER

———	——	Social Science Elective	3	0	3
T-ELN	210	Semiconductor Circuit Analysis	5	2 or 3*	6
T-ELN	214	Wave Shaping and Pulse Circuits	2	2 or 3*	3
———	——	Elective	3	0	3
			13	4 or 6	15

SEVENTH QUARTER

T-ELN	215	Wave Shaping and Pulse Circuits	2	2 or 3*	3
T-ELN	220	Electronics Systems	5	4 or 6*	7
———	——	Social Science Elective	3	0	3
———	——	Elective			3
			10	6 or 9	16

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

MECHANICAL ENGINEERING TECHNOLOGY

This curriculum guide was prepared for the purpose of outlining a training program for students of mechanical drafting and design technology. There are certain identifiable duties which are common to all technicians of this general classification and which comprise the basic areas of technical knowledge they need. This curriculum has been designed for training persons in the accepted performance of these basic duties that will be assigned, and to enable the individual student to become proficient in a short time after he becomes employed in the industry.

Courses in general education have been included to give a student the assurance and understanding that comes with education upon a broad base. The technician associates with people of many levels of thought and expression—administrative personnel, scientists, engineers, skilled workmen—and must be able to communicate effectively at all levels. Courses containing essential information from related subject areas, such as mathematics, physics, and mechanics have been included in order to provide the student a better academic base for his training. Emphasis is placed upon ability to think and plan, as well as drafting procedures and techniques.

Mechanical drafting and design technicians are concerned with the preparation of drawings for design proposals, for experimental models and items for production use.

These technicians perform many aspects of drafting in a specialized field, such as the developing of the drawing of a section, sub-assembly or major component. Investigating design factors and availability of material and equipment, production methods and facilities are frequent assignments. They assist in the design of units and controls from specifications by utilizing drawings of existing units and reports on functional performance. They may draw components in industrial fields based on engineers' original design concepts or specific ideas. Also, they may be assigned as coordinators for the execution of related work of other design, production, tooling, material and planning groups. Technicians with experience in this classification may often supervise the preparation of working drawings.

These technicians are employed in many types of manufacturing, fabrication, research development and service industries. Substantial numbers also are employed in communications, transportation, public utilities, consulting engineering firms, and federal, state, and local governments.

REPRESENTATIVE POSITIONS PREPARED FOR

Designer (machine and tool)
Industrial Sales Engineer
Production Manager
Maintenance Engineer
Time Study Engineer
Technical Illustrator
Draftsman (machine and tool)
Test Laboratory Technician
Heating Engineer
Shop Foreman
Business Machine Technician
Experimental Machinist

FIRST QUARTER

			Hours Per Week		Quarter Hours Credit
			Class	Lab.	
T-MAT	100	PreTechnical Mathematics	5	0	5
T-ENG	101	Grammar	3	0	3
T-DFT	101	Technical Drafting	1	6*	3
T-MEC	100	Shop Practice	1	6*	3
T-PHY	100	Science of Measured Values	3		3
			13	12	17

SECOND QUARTER

			Class	Lab.	Credit
T-MAT	101	Technical Mathematics	5	0	5
T-ENG	102	Composition	3	0	3
T-PHY	101	Physics: Properties of Matter	3	2	4
T-DFT	102	Technical Drafting	0	6*	2
T-MEC	101	Machine Processes	0	6*	2
			11	14	16

THIRD QUARTER

T-MAT	102	Technical Mathematics	5	0	5
T-ENG	103	Report Writing	3	0	3
T-PHY	102	Physics: Work, Energy and Power	3	2	4
T-DFT	103	Technical Drafting	0	6*	2
T-MEC	102	Machine Processes	0	6*	2
			11	14	16

FOURTH QUARTER

T-MAT	103	Technical Mathematics	5	0	5
T-PHY	103	Physics: Electricity	3	2	4
T-PHY	106	Applied Mechanics	5	0	5
T-DFT	204	Descriptive Geometry	2	4	4
			15	6	18

FIFTH QUARTER

T-MAT	201	Technical Mathematics	5	0	5
T-DFT	201	Technical Drafting	2	6*	4
T-MEC	205	Strength Of Materials	3	2	4
T-MEC	210	Physical Metallurgy	3	3*	4
			13	11	17

SIXTH QUARTER

———	——	Social Science Elective	3	0	3
T-ENG	204	Oral Communication	3	0	3
T-DFT	205	Design Drafting I	2	6*	4
T-DFT	211	Mechanisms	3	2	4
T-MEC	211	Physical Metallurgy	3	3*	4
			14	11	18

SEVENTH QUARTER

———	——	Social Science Elective	3	0	3
T-DFT	206	Design Drafting II	2	6*	4
T-MEC	235	Hydraulics & Pneumatics	3	3*	4
———	——	Elective	3	2	4
			11	11	15

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

SECRETARIAL SCIENCE

EXECUTIVE
ENGINEER-TECHNICAL
LEGAL
MEDICAL

The demand for better qualified secretaries in our ever-expanding business, industry, government, and professional world is becoming more acute. The purpose of these curriculums is to outline a training program that will provide training in the accepted procedures required by the business, industrial, legal, and professional areas and to enable persons to become proficient soon after employment in their particular field.

Each of the above listed curriculums is designed to offer the students the necessary secretarial skills in typing, dictation, transcription, and terminology for employment in the particular area of work. The special training in secretarial subjects is supplemented by related courses in mathematics, accounting, business law, and personality development.

The graduates of these programs should have a knowledge of the terminology peculiar to the major area, skill in dictation and accurate transcription of all correspondence, memoranda, and reports. The graduate may be employed as a stenographer or a secretary. Opportunities for employment of the graduate of either of these programs exist in a variety of secretarial positions in legal, medical, engineering, government and many other technical areas.

REPRESENTATIVE POSITIONS PREPARED FOR

Legal Secretary
Executive Secretary
General Secretary
Medical Secretary
Technical Secretary
Engineering Secretary

			Hours Per Week		Quarter Hours
			Class	Lab.	Credit
FIRST QUARTER					
T-ENG	101	Grammar	3	0	3
T-BUS	102	Typewriting (Or Elective)	2	3*	3
T-MAT	110	Business Math.	5	0	5
T-BUS	101	Intro. to Bus.	5	0	5
T-BUS	106	Shorthand (or elective)	3	2	4
			18	5	20
SECOND QUARTER					
T-ENG	102	Composition	3	0	3
T-BUS	103	Typewriting (Or Elective)	2	3*	3
T-BUS	107	Shorthand	3	2	4
T-BUS	120	Accounting	5	2	6
T-BUS	115	Business Law	3	0	3
			16	7	19
THIRD QUARTER					
T-ENG	103	Report Writing	3	0	3
T-BUS	104	Typewriting	2	3*	3
T-BUS	108	Shorthand	3	2	4
T-BUS	110	Office Machines	2	2	3
T-BUS	112	Filing	3	0	3
T-BUS	183	(L), (M), (T)	3	0	3
			16	7	19
FOURTH QUARTER					
T-ENG	204	Oral Communication	3	0	3
†T-BUS	206E	Dictation and Transcription (executive)	3	2	4
T-BUS	205	Adv. Typewriting	2	3*	3
T-BUS	211	Office Machines	2	2	3
T-EDP	104	Intro. to Data Processing Systems	3	2	4
			13	9	17

FIFTH QUARTER

T-ENG	206	Bus. Communication	3	0	3
†T-BUS	207E	Dictation and Transcription (executive)	3	2	4
T-BUS	214	Secretarial Procedures	3	2	4
————	——	Social Science Elective	3	0	3
————	——	Elective	6	0	6
			18	4	20

SIXTH QUARTER

————	——	Social Science Elective	3	0	3
†T-BUS	280E	Dictation and Transcription (executive)	3	2	4
T-BUS	271	Office Management	3	0	3
————	——	Elective	6	0	6
			15	2	16

† These courses will be oriented to the major area such as Legal, Medical, Technical, etc.

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

TECHNICAL COURSE DESCRIPTIONS

The contents of Technical courses are outlined in the following course descriptions. First year courses are numbered 100 through 199 and second year courses from 200 through 299. Courses should be pursued in normal sequence with prerequisite courses taken as indicated.

One quarter hour of credit is earned for a class meeting one hour each week for the duration of the quarter with the exception of regular laboratories and "manipulative laboratories." A "manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour is given for every three of these laboratory hours; one quarter hour is given for each two regular laboratory hours.

Provided for each course is the following information: subject number, title, number of hours of credit and in parentheses, the number of lecture hours and the number of laboratory hours each week.

AUTOMOTIVE

COURSE DESCRIPTIONS

T-AUT 111 Internal Combustion Engines 5 (4-3)
A basic study of the internal combustion engine, theoretical cycles, physical principles of fueling, lubricating and cooling, and the nature and relationship of all components in the functioning engine. In the laboratory, engines are tested for performance characteristics while in operation.
Prerequisite: None.

T-AUT 112 Internal Combustion Engines 6 (4-6)
Emphasis upon proper fits, clearances, exact requirements of engines in common use, interpretation of manufactuers' specifications as related to engine principles, functional and design relationships. The laboratory correlates with classroom work.
Prerequisite: T-AUT 111.

T-AUT 121 Automotive Electrical Systems 4 (3-3)
A study of electrical principles specifically related to the motor vehicle industry. Stress is placed on the construction, operation, and service of the following items: battery, generator, alternator, ignition system, wiring circuits, and voltage and current control devices. The student will receive instruction in the use of testing equipment and special tools used on electrical components. Laboratory correlates theory and practice in the actual use of equipment for testing and adjusting.
Prerequisite: T-PHY 103.

T-AUT 125 Chassis Systems 4 (2-6)
The principles of wheel and chassis alignment, suspension systems, static and dynamic wheel balancing, and steering geometry. The laboratory will include power steering units and other chassis units for investigation of theory, practice and design.
Prerequisite: None.

T-AUT 201 Engine Rebuilding 4 (2-6)
A thorough study of the maintenance of the internal combustion engine. An investigation of factors affecting engine performance, testing methods and equipment, and

calculations relative to performance comparisons. Laboratory work stresses the operation and maintenance of equipment required in the engine rebuilding process, correct methods of disassembly, cleaning, inspection of parts, and reassembly.
Prerequisites: T-AUT 213, T-MEC 102.

T-AUT 202 Engine Rebuilding 3 (1-6)
Emphasis is given to the fits and tolerances of reworked parts and components. Laboratory experience is given on the more complex equipment to enable the student to complete the engine rebuilding process.
Prerequisite: T-AUT 201.

T-AUT 205 Engine Overhaul 4 (2-6)
A thorough study of the maintenance of the internal combustion engine. An investigation of factors affecting engine performance, testing methods and equipment, and calculations relative to performance comparisons. Laboratory work stresses the operation and maintenance of equipment required in engine overhauling process, correct methods of disassembly, cleaning, inspection of parts, and reassembly.
Prerequisite: T-AUT 213.

T-AUT 209 Vehicle Servicing 3 (2-3)
A compresensive study of factors involved in vehicle servicing, periodic check-up, minor and major tune-ups, the proper diagnosing and servicing procedures. The use of service manuals and service bulletins is stressed throughout.
Prerequisites: T-AUT 112, T-AUT 121, T-AUT 125, T-AUT 221.

T-AUT 213 Diesel Engines 3 (2-3)
Fuel analysis, air induction, fuel systems with emphasis on pumps and injectors—their calibration and adjustments, combustion and precombustion chambers, and exhaust systems.
Prerequisite: T-AUT 112, T-PHY 209.

T-AUT 221 Power Trains 5 (3-6)
The study of bevel, spiral, worm, hypoid, and planetary gearing; rear axle design including positive traction units, driveshafts, universal joints; fluid couplings, torque convertors, servos, and control units as applied to the automatic transmission. The laboratory correlates theory and practice using various manufacturers units.
Prerequisite: T-PHY 102.

T-AUT 222 Automatic Transmissions 3 (1-6)
A study in depth of control mechanisms in automatic transmissions. Emphasis is placed on diagnosis of trouble, corrective measures to be taken, and testing of the repaired unit.
Prerequisite: T-AUT 221.

T-AUT 226 Braking Systems 3 (2-3)
The application of hydraulic and pneumatic principles to motor vehicle brake systems. Modes of braking and control systems including heavy duty brakes, vacuum assist, and air brakes.
Prerequisite: T-MEC 235.

T-AUT 231 Diagnosis and Testing 4 (2-6)
A comprehensive study of the principles of modern automotive test equipment including the dynamometer, engine analyzers, oscilloscopes, dwell meters, fuel and exhaust analyzers. The laboratory involves test runs to obtain engine power output and mechanical efficiency.
Prerequisites: T-AUT 112, T-AUT 121.

T-AUT 232 Diagnosis and Testing 4 (2-6)
Diagnostic testing procedures are emphasized in determining the nature of troubles that develop in various component systems found in motor transportation units. A thorough study and application of testing methods, equipment use, and the interpretation of test

results. Outside reading concerning the latest test procedures and research performed by major companies will be assigned and discussed. Related laboratory studies will involve test runs, analysis of data and corrective maintenance.
Prerequisite: T-AUT 231.

T-AUT 235 Power Accessories 4 (2-6)
A study of various power units in general use on motor vehicles. Instruction in various power operated convenience and safety devices including tops, windows, seats, and speed control units. Also, power brake units, power steering units, and comfort control devices. Laboratory correlates practice in the operation and service of various units.
Prerequisites: T-AUT 121, T-MEC 235, T-PHY 209.

T-AUT 236 Automotive Air Conditioning 3 (2-3)
A general introduction to the principles of refrigeration. A study of the assembly components and connections necessary in the unit as applied to automobiles and trucks. The methods of operation and control. Safety precautions in the handling of refrigerants. Laboratory instruction includes installation and service of the air conditioning unit.
Prerequisite: T-PHY 209.

T-AUT 240 Motor Vehicle Laws and Regulations 3 (3-0)
A basic study of motor vehicle laws and regulations of North Carolina including the state inspection requirements. An overview of interstate and intrastate I.C.C. and liability insurance requirements pertaining to motor carriers.
Prerequisite: None

T-AUT 243 Vehicle Shop Management 3 (3-0)
A comprehensive study of shop planning and layout, including problems relating to equipment, operational cost, organization, insurance, public relations. Customer repair orders, factory warranty forms, and scheduling.
Prerequisite: None.

BUSINESS

COURSE DESCRIPTIONS

T-BUS 101 Introduction to Business 5 (5-0)
A survey of the business world with particular attention devoted to the structure of the various types of business organization, methods of financing, internal organization, and management.
Prerequisite: None.

T-BUS 102 Typewriting 3 (2-3)
Introduction to the touch typewriting system with emphasis on correct techniques, mastery of the keyboard, simple business correspondence, tabulation, and manuscripts.
Prerequisite: None.

T-BUS 103 Typewriting 3 (2-3)
Instruction emphasizes the development of speed and accuracy with further mastery of correct typewriting techniques. These skills and techniques are applied in tabulation, manuscript, correspondence, and business forms.
Prerequisite: T-BUS 102 or the equivalent. Speed requirement, 30 words per minute for five minutes.

T-BUS 104 Typewriting 3 (2-3)
Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as an expert typist, producing mailable copies. The production units are tabulation, manuscript, correspondence, and business forms.
Prerequisite: T-BUS 103 or the equivalent. Speed requirement, 40 words per minute for five minutes.

T-BUS 106 Shorthand 4 (3-2)
A beginning course in the theory and practice of reading and writing shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.
Prerequisite: None.

T-BUS 107 Shorthand 4 (3-2)
Continued study of theory with greater emphasis on dictation anl elementary transcription.
Prerequisite: T-BUS 106 or the equivalent.

T-BUS 108 Shorthand 4 (3-2)
Theory and speed building. Introduction to office style dictation. Emphasis on development of speed in dictation and accuracy in transcription.
Prerequisite: T-BUS 107.

T-BUS 110 Office Machines 3 (2-2)
A general survey of the business and office machines. Students will receive training in techniques, processes, operation and application of the ten-key adding machines, full keyboard adding machines, and calculator.
Prerequisite: None.

T-BUS 112 Filing 3 (3-0)
Fundamentals of indexing and filing, combining theory and practices by the use of miniature letters, filing boxes and guides. Alphabetic, Triple Check, Automatic, Geographic, Subject, Soundex, and Dewey Decimal filing.
Prerequisite: None.

T-BUS 115 Business Law 3 (3-0)
A general course designed to acquaint the student with certain fundamentals and principles of business law, including contracts, negotiable instruments, and agencies.
Prerequisite: None.

T-BUS 116 Business Law 3 (3-0)
Includes the study of laws pertaining to bailments, sales, risk-bearing, partnership-corporation, mortgages, and property rights.
Prerequisite: T-BUS 115.

T-BUS 120 Accounting 6 (5-2)
Principles, techniques and tools of accounting, for understanding of the mechanics of accounting. Collecting, summarizing, analyzing, and reporting information about service and mercantile enterprises, to include practical application of the principles learned.
Prerequisite: T-MAT 110.

T-BUS 121 Accounting 6 (5-2)
Partnership and corporation accounting including a study of payrolls, federal and state taxes. Emphasis is placed on the recording, summarizing and interpreting data for management control rather than on bookkeeping skills. Accounting services are shown as they contribute to the recognition and solution of management problems.
Prerequisite: T-BUS 120.

T-BUS 124 Business Finance 3 (3-0)
Financing, federal, state, and local government and the ensuing effects upon the economy. Factors affecting supply of funds, monetary and credit policies.
Prerequisite: T-BUS 123.

T-BUS 183E Terminology and Vocabulary 3 (3-0)
To develop an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices.
Prerequisite: T-BUS 107

T-BUS 183L Terminology and Vocabulary 3 (3-0)
To develop an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices.
Prerequisite: T-BUS 107.

T-BUS 183M Terminology and Vocabulary 3 (3-0)
To develop an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices.
Prerequisite: T-BUS 107.

T-BUS 183T Terminology and Vocabulary 3 (3-0)
To develop an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices.
Prerequisite: T-BUS 107.

T-BUS 205 Advanced Typewriting 3 (2-3)
Emphasis is placed on the development of individual production rates. The student learns the techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study. These projects include review of letter forms, methods of duplication, statistical tabulation, and the typing of reports, manuscripts and legal documents.
Prerequisite: T-BUS 104. Speed requirement, 50 words per minute for five minutes.

T-BUS 206E Dictation and Transcription 4 (3-2)
Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar materials at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material.
Prerequisite: T-BUS 108.

T-BUS 206L Dictation and Transcription 4 (3-2)
Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material.
Prerequisite: T-BUS 108.

T-BUS 206M Dictation and Transcription 4 (3-2)
Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material.
Prerequisite: T-BUS 108.

T-BUS 206T Dictation and Transcription 4 (3-2)
Develops the skill of taking dictation and of transcribing at the typewriter materials appropriate to the course of study, which includes a review of the theory and the dictation of familiar and unfamiliar material at varying rates of speed. Minimum dictation rate of 100 words per minute required for five minutes on new material.
Prerequisite: T-BUS 108.

T-BUS 207E Dictation and Transcription 4 (3-2)
Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.
Prerequisite: T-BUS 206.

T-BUS 207L Dictation and Transcription 4 (3-2)
Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic require-

ments of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.
Prerequisite: T-BUS 206.

T-BUS 207M Dictation and Transcription 4 (3-2)
Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.
Prerequisite: T-BUS 206M

T-BUS 207T Dictation and Transcription 4 3-2)
Covering materials appropriate to the course of study, the student develops the accuracy, speed, and vocabulary that will enable her to meet the stenographic requirements of business and professional offices. Minimum dictation rate of 110 words per minute required for five minutes on new material.
Prerequisite: T-BUS 206.

T-BUS 208E Dictation and Transcription 4 (3-2)
Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material.
Perequisite: T-BUS 207.

T-BUS 208L Dictation and Transcription 4 (3-2)
Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material.
Perequisite: T-BUS 207.

T-BUS 208M Dictation and Transcription 4 (3-2)
Principally a speed building course, covering materials appropriate to the course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material.
Perequisite: T-BUS 207.

T-Bus 208T Dictation and Transcription 4 (3-2)
Principally a speed building course, covering materials appropriate to the course of course of study, with emphasis on speed as well as accuracy. Minimum dictation rate of 120 words per minute required for five minutes on new material.
Perequisite: T-BUS 207.

T-BUS 211 Office Machines 3 (2-2)
Instructions in the operation of the bookkeeping-accounting machines, duplicating equipment, and the dictation and transcribing machines.
Prerequisite: T-BUS 110.

T-BUS 214 Secretarial Procedures 4 (3-2)
Designed to acquaint the student with the responsibilities encountered by a secretary during the work day. These include the following: receptionist duties, handling the mail, telephone techniques, travel information, telegrams, office records, purchasing of supplies, office organization, and insurance claims.
Prerequisite: None.

T-BUS 215L Office Application 6 (6-0)
During the sixth quarter only, students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study.
Prerequisites: T-BUS 214, T-BUS 205, T-BUS 208, T-BUS 211.

T-BUS 215L Office Application 6 (6-0)
During the sixth quarter only, students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study.
Prerequisites: T-BUS 214, T-BUS 205, T-BUS 208, T-BUS 211.

T-BUS 215M Office Application 6 (6-0)
During the sixth quarter only, students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study.
Prerequisites: T-BUS 214, T-BUS 205, T-BUS 208, T-BUS 211.

T-BUS 215T Office Application 6 (6-0)
During the sixth quarter only, students are assigned to work in a business, technical, or professional office for six hours per week. The objective is to provide actual work experience for secretarial students and an opportunity for the practical application of the skills and knowledge previously learned, according to the course of study.
Prerequisites: T-BUS 214, T-BUS 205, T-BUS 208, T-BUS 211.

T-BUS 217 Business Law 3 (3-0)
A study of the powers, policies, methods, and procedures used by the various federal, state and local administrative agencies in promoting and regulating business enterprises. It includes a consideration of the constitutional and statutory limitations on these bodies and judicial review of administrative action.
Prerequisite: T-BUS 116.

T-BUS 219 Credit Procedures and Problems 3 (3-0)
Principles and practices in the extension of credit; collection procedures; laws pertaining to credit extension and collection are included.
Prerequisite: T-BUS 120.

T-BUS 222 Accounting 6 (5-2)
Thorough treatment of the field of general accounting, providing the necessary foundation for specialized studies that follow. The course includes, among other aspects, the balance sheet, income and surplus statements, fundamental processes of recording, cash and temporary investments, and analysis of working capital.
Prerequisite: T-BUS 121.

T-BUS 223 Accounting 6 (5-2)
Additional study of intermediate accounting with emphasis on investments, plant and equipment, intangible assets and deferred charges, long-term liabilities, paid-in capital, retained earnings, and special analytical processes.
Prerequisite: T-BUS 222.

T-BUS 225 Cost Accounting 4 (3-2)
Nature and purposes of cost accounting; accounting for direct labor, materials, and factory burden; job cost, and standard cost principles and procedures; selling and distribution cost; budgets, and executive use of cost figures.
Prerequisite: T-BUS 121.

T-BUS 227 Advanced Accounting 4 (3-2)
Advanced accounting theory and principles as applied to special accounting problems, bankruptcy proceedings, estates and trusts, consolidation of statements, parent, and subsidiary accounting.
Prerequisite: T-BUS 223.

T-BUS 229 Taxes 4 (3-2)
Application of federal and state taxes to various businesses and business conditions. A

study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance.
Prerequisite: T-BUS 121.

T-BUS 232 Sales Development 3 (3-0)
A study of retail, wholesale and specialty selling. Emphasis is placed upon mastering and applying the fundamentals of selling. Preparation for and execution of sales demonstrations required.
Prerequisite: None.

T-BUS 233 Personnel Management 3 (3-0)
Principles of organization and management of personnel, procurement, placement, training, performance checking, supervision, remuneration, labor relations, fringe benefits and security.
Prerequisite: None.

T-BUS 235 Business Management 3 (3-0)
Principles of business management including overview of major functions of management, such as planning, staffing, controlling, directing, and financing. Clarification of the decision-making function versus the operating function. Role of management in business—qualifications and requirements.
Prerequisite: None.

T-BUS 237 Wholesaling 3 (3-0)
The development of wholesaling; present day trends in the United States. A study of the functions of wholesaling.
Prerequisite: None.

T-BUS 239 Marketing 5 (5-0)
A general survey of the field of marketing, with a detailed study of the functions, policies, and institutions involved in the marketing process.
Prerequisite: None

T-BUS 243 Advertising 4 (3-2)
The role of advertising in a free economy and its place in the media of mass communications. A study of advertising appeals; product and market research; selection of media; means of testing effectiveness of advertising. Theory and practice of writing advertising copy for various media.
Prerequisite: None.

T-BUS 245 Retailing 3 (3-0)
A study of the role of retailing in the economy including development of present retail structure, functions performed, principles governing effective operation and managerial problems resulting from current economic and social trends.
Prerequisite: None.

T-BUS 247 Business Insurance 3 (3-0)
A presentation of the basic principles of risk insurance and their application. A survey of the various types of insurance is included.
Prerequisite: None.

T-BUS 255 Interpreting Accounting Records 3 (3-0)
Designed to aid the student in developing a "use understanding" of accounting records, reports and financial statements. Interpretation, analysis, and utilization of accounting statements.
Prerequisite: T-BUS 121.

T-BUS 266 Budget and Record Keeping 3 (3-0)
The basic principles, methods, and procedures for preparation and operation of budgets. Special attention is given to the involvement of individual departments and the role they play. Emphasis on the necessity for accurate record keeping in order to evaluate the effectiveness of budget planning.
Prerequisite: T-BUS 121.

T-Bus 269 Auditing 4 (3-2)
Principles of conducting audits and investigations; setting up accounts based upon audits; collecting data on working papers; arranging and systemizing the audit, and writing the audit report. Emphasis placed on detailed audits, internal auditing, and internal control.
Prerequisite: T-BUS 223.

T-BUS 271 Office Management 3 (3-0)
Presents the fundamental principles of office management. Emphasis on the role of office management including its functions, office automation, planning, controlling, organizing and actuating office problems.
Prerequisite: None.

T-BUS 272 Principles of Supervision 3 (3-0)
Introduces the basic responsibilities and duties of the supervisor and his relationship to superiors, subordinates, and associates. Emphasis on securing an effective work force and the role of the supervisor. Methods of supervision are stressed.
Prerequisite: None.

T-BUS 284M Terminology and Vocabulary 3 (3-0)
Greater emphasis on an understanding of the terminology and vocabulary appropriate to the course of study, as it is used in business, technical, and professional offices.
Prerequisite: T-BUS 183M.

CHEMISTRY

COURSE DESCRIPTIONS

T-CHM 101 Chemistry 5 (4-2)
Study of the physical and chemical properties of substances; chemical changes; elements, compounds, gases, chemical combinations; weights and measurements; theory of metals; acids, bases, salts, solvents, solutions, and emulsions. In addition, study of carbohydrates; electrochemistry, electrolytes, and electrolysis in their application of chemistry to industry.
Prerequisite: T-MAT 101, (T-MAT 110—Dental only).

CIVIL

COURSE DESCRIPTIONS

T-CIV 101 Surveying 4 (2-6)
Theory and practice of plane surveying including taping, differential and profile leveling, cross sections, earthwork computations, transit, stadia and transit-tape surveys.
Corequisites: T-MAT 101, T-DFT 101.

T-CIV 102 Surveying 4 (2-6)
Triangulation of ordinary precision; use of plane table; calculation of areas of land; land surveying; topographic surveys and mapping.
Prerequisite: T-CIV 101.
Corequisites: T-MAT 102, T-DFT 102.

T-CIV 103 Surveying 4 (2-6)
Route surveys by ground and aerial methods; simple, compound, reverse, parabolic and spiral curves; geometric design of highways; highway surveys and plans, including mass diagrams.
Prerequisite: T-CIV 102.
Corequisite: T-MAT 103.

T-CIV 114 Statics 5 (5-0)
Forces, resultants, and types of force systems; moments, equilibrium of coplanar forces by analytical and graphic methods; stresses and reactions in simple structures; equilibrium of forces in space; static and kinetic friction; center of gravity, centroids, and moment of inertia.
Corequisite: T-MAT 102.

T-CIV 201 Properties of Engineering Materials 3 (2-3)
Study and testing of the properties of ferrous and nonferrous metals, timber, stone, clay products, bituminous cementing materials; load and strain measurements; behavior of materials under load; qualities other than strength; control of the properties of the materials; non-destructive tests.
Prerequisite: T-PHY 101.
Corequisite: T-CIV 216.

T-CIV 202 Properties of Soils 3 (2-3)
Study of soil types and their physical properties; mechanical analysis and tests of soils; techniques of subsurface investigation; earth pressure theories; bearing capacity; stability of slopes; hydrostatics of ground water; methods of compaction and consolidation.
Prerequisite: T-CIV 216.

T-CIV 204 Surveying 4 (2-6)
Aerial photogrammetry; applications of aerial surveys; building and road construction surveying; lines and grades for foundation layout, building construction, bridge layout, sewer and pipe line surveys.
Prerequisite: T-CIV 103.

T-CIV 216 Strength of Materials 4 (3-2)
Fundamental stress and strain relationship; torsion; shear and bending moments; stresses and deflections in beams; introduction to statically indeterminate beams; columns; combined stresses.
Prerequisite: T-CIV 114.
Corsequisite: T-MAT 103.

T-CIV 217 Construction Methods and Equipment 4 (3-2)
Excavating methods and equipment used in building and highway construction; pile driving; construction techniques and equipment used in reinforced concrete buildings, bridges, lift-slabs, thin-shells and folded plates, erection methods and equipment of structural steel buildings and bridges; carpentry in house and heavy timber construction; construction safety. Field inspection trips.
Prerequisites: T-DFT 102, T-CIV 102.

T-CIV 218 Plain Concrete 4 (3-3)
Study and testing of the composition and properties of concrete including cementing agents, aggregates, admixtures, and air-entrainment; design and proportioning of concrete mixes to obtain pre-determined strengths and properties; methods of placing and curing concrete; standard control tests of concrete.
Corequisite: T-CIV 201.

T-CIV 219 Steel and Timber Construction 4 (3-2)
Analysis and basic design of steel beams, tension members, columns, and riveted, high strength bolted, welded connections; study of plate girders, industrial building roofs and vents, continuous spans, lightweight steel construction; use of American Institute

of Steel Construction Manual; introduction to rigid frames and plastic design in steel. Design of timber members and their connections. Field inspection trips.
Prerequisite: T-CIV 216.

T-CIV 220 Construction Planning 3 (2-3)
Analysis of construction plant layout requirements and contractor's organization for building and highway projects. Construction scheduling; project control and supervision; coordinating trades on building construction. Operations, charts, and practical application of Critical Path Method (CPM) for construction planning, scheduling, and "time-cost" determination.
Prerequisites: T-CIV 217, T-CIV 218, T-CIV 219.
Corequisite: T-CIV 223.

T-CIV 221 Reinforced Concrete Construction 4 (3-2)
Analysis and design of reinforced concrete beams, floor systems, and columns. Use of CRSI Design Handbook. Introduction to ultimate strength design. Principles of prestressed and precast concrete. Field inspection trips.
Prerequisite: T-CIV 216.

T-CIV 223 Codes, Contracts and Specifications 2 (2-0)
Basic principles and methods most significant in contract relationships; appreciation of the legal considerations in construction work; study of the National Building Code and local building codes, interpreting and outlining specification.
Prerequisite: None.

T-CIV 225 Construction Estimates and Costs 5 (3-6)
Interpretation of working drawings of timber, structural steel, and reinforced concrete structures and highways; preparation of material and labor quantity surveys from plans and specifications; approximate and detailed estimates of costs, bidding procedures and preparation of bids.
Prerequisite: T-CIV 220.
Corequisite: T-CIV 227.

T-CIV 226 Foundation Construction 4 (3-2)
Exploration of sites; study of principles of foundation action; theory and construction practices pertaining to excavation bracing, cofferdams, drainage, stabilization, various types of footings, foundation walls, pile foundations, retaining walls, shoring and underpinning.
Prerequisites: T-CIV 219, T-CIV 221, T-CIV 202.

T-CIV 227 Construction of Roads and Pavements 4 (3-2)
Construction practices for various types of road building, including soil properties, grading, subgrading, base courses, drainage, embankments, compaction, and formwork. Design, construction, and testing of rigid Portland-cement concrete and flexible bituminous pavements. Field inspection trips.
Prerequisites: T-CIV 217, T-CIV 218, T-CIV 202.

DATA PROCESSING

COURSE DESCRIPTIONS

T-EDP 104 Introduction to Data Processing Systems 4 (3-2)
Fundamental concepts and operational principles of data processing systems, as an aid in developing a basic knowledge of computers, prerequisite to the detail study of particular computer problems. This course is a prerequisite for all programming courses.
Prerequisite: None.

DENTAL

COURSE DESCRIPTIONS

T-DEN 101 Dental Anatomy and Physiology **6 (2-12)**
An introduction to anatomy of the head and neck, histology, physiology and occlusion, with special emphasis on anatomy of the individual teeth and surrounding tissues as applicable to the carving of wax patterns. The laboratory portion includes drawings of each tooth, from central incisor through the second molar on one side for the maxillary and mandibular arches. Six teeth are carved completely, including the coronal and root portions—maxillary and mandibular right central incisors, maxillary and mandibular right second bicuspids, and maxillary and mandibular right first molars. All teeth on a stone dentoform (maxillary and mandibular) are removed one by one and replaced with wax carvings which reproduce proper form and function.
Prerequisite: None

T-DEN 104 Dental Materials **3 (1-6)**
A comprehensive study of nonmetallic dental materials such as gypsum products, impression materials, resins, waxes, investments, and duplicating materials. The laboratory exercises are designed to illustrate physical properties of all materials studied and the results of proper and improper manipulation of the materials.
Prerequisite: None.

T-DEN 106 Complete Denture Techniques **2 (1-3)**
Study of the theory of complete dentures, with emphasis on laboratory phases. Laboratory work consists of pairing casts; construction of a temporary partial denture, custom trays, shellac base plates, stabilized occlusion rims and mounting casts; denture repairs and tooth replacement; and completion of full maxillary and mandibular dentures on an adjustable articulator. Emphasis is placed on correct occlusion, curing, finishing and polishing.
Prerequisite: None.

T-DEN 107 Complete Denture Techniques **4 (1-9)**
A study of variations in denture construction techniques and the management of different materials. Laboratory work consists of reline and rebase procedures and construction of a minimum of four sets of complete maxillary and mandibular dentures, each using a different posterior tooth form, three in porcelain and one in plastic. All work is done on adjustable articulators.
Prerequisite: T-DEN 106.

T-DEN 108 Partial Denture Techniques **5 (2-9)**
Basic techniques used in making cast removable partial dentures, with special emphasis on design. A minimum of two mandibular and one maxillary cast removable partial dentures are constructed, with additional exercises in surveying and designing. Both gold and chrome-cobalt alloys are used in all partial denture techniques.
Prerequisite: T-DEN 111, T-DEN 113, T-DEN 107

T-DEN 109 Partial Denture Techniques **4 (1-9)**
Study of techniques for making wrought-metal removable partial dentures and various types of temporary removable appliances, including bite splints. Laboratory procedures include the use of wrought frameworks, the inclusion of cast portions in wrought frameworks, and construction of temporary removable appliances with wrought clasps and with cast clasps. A minimum of twelve appliances to be fabricated, including one maxillary cast partial.
Prerequisite: T-DEN 108.

T-DEN 111 Dental Metallurgy **3 (3-0)**
A study of ferrous and nonferrous metals and their application to dental procedures, including the physical properties of metals and alloys, crystalline structure, theory of alloys, soldering, casting, heat treating, fatigue and principles of polishing and finishing. Special emphasis is placed on the chrome-cobalt alloys and precious metals.
Prerequisite: T-DEN 104.

T-DEN 113 Cast Metallic Inlay and Crown Techniques 6 (2-12)
Study of processing techniques for fabricating cast restorations and an introduction to terminology and techniques specific to inlays, crowns, and bridges. In the laboratory, casts and dies are prepared from hydrocolloid, rubber, and tube impressions; waxing, carving, investing, casting, and polishing of simple and complex inlays, full crowns, three-quarter crowns, and veneered crowns; contacts and various castings are soldered. A total of no less than ten castings are fabricated.
Prerequisites: T-DEN 106, T-DEN 111.

T-DEN 115 Crown and Bridge Techniques 4 (1-9)
Study of techniques for construction of fixed bridges, with review of dental anatomy and terminology as related to crown and bridge techniques. The laboratory portion includes construction of bridges of various designs utilizing metal and porcelain facings in all phases, from the fabrication of the model through the polishing of the completed bridge. A mandibular posterior three unit bridge, a maxillary posterior four unit bridge, and a maxillary anterior three unit bridge are constructed as minimum requirements.
Prerequisite: T-DEN 113.

T-DEN 116 Crown and Bridge Techniques 5 (1-12)
A study of the physical properties and manipulation of porcelain, including techniques for construction of bridges in the anterior and posterior region. Minimum requirements are one six-tooth maxillary anterior bridge and one five-tooth maxillary posterior bridge.
Prerequisite: T-DEN 115.

T-DEN 201 Advanced Denture with Cast Base Techniques 5 (2-9)
Study of cast bases in complete denture construction, the use of anatomical (fully adjustable) articulator, and variations in techniques necessitated by surgical defects and hereditary conditions. A minimum requirement is construction of two sets of complete maxillary and mandibular dentures—one with cast bases short of borders and the other with complete cast base only. Porcelain teeth are used on one set and plastic on the other.
Prerequisite: T-DEN 107.

T-DEN 204 Partial Denture Techniques 3 (1-6)
Study of wrought clasps in cast frameworks and techniques for construction of all-metal removable partial dentures. Laboratory exercises cover combination wrought-cast clasps, all-metal removable appliances using tube teeth, side-groove teeth and plastic teeth, repair of partial dentures and addition of teeth and clasps. Fabrication of six appliances is minimal requirement.
Prerequisite: T-DEN 109.

T-DEN 205 Partial Denture Techniques 5 (1-12)
Study of replacement of anterior teeth by removable partial dentures and use of internal attachments. Laboratory exercises include the replacement of anterior teeth with porcelain and plastic facings, with plastic teeth in all-metal bases, with custom-made teeth, and with cast metal and resin appliances; exercises in the use of precision and semi-precision appliances; and construction of cast frameworks and obturators. A minimum of ten appliances are fabricated including two obturators. Five of the frameworks fabricated in T-DEN 109 are completed, and five new frames are constructed for a total of ten appliances.
Prerequisite: T-DEN 204.

T-DEN 207 Advanced Crown and Bridge Techniques 3 (1-6)
Study of techniques for construction of bridges combining resin material and gold construction. Minimum requirements are construction of one six-tooth maxillary anterior bridge, one six-tooth mandibular anterior bridge, and one three-tooth maxillary posterior bridge including one inlay and one onlay.
Prerequisite: T-DEN 116.

T-DEN 209 Jurisprudence and Ethics Seminar 3 (3-0)
An overview of historical background of the dental field; study of legal aspects of practice, ethics related to all dental workers, with emphasis on those pertaining to dental laboratory technicians and the legal and business aspects of operating and managing a dental laboratory. Guest speakers and field trips are utilized.
Prerequisite: None.

T-DEN 211 Ceramic Techniques 5 (2-9)
Study of the physical properties and manipulation of porcelain, including staining and personalization, techniques for fabrication of inlays and porcelain crowns, and personalization of porcelain. Fabrication of porcelain units includes the preparation of dies, adaptation of platinum matrix, firing, grinding, and glazing; minimum requirements are three porcelain jackets and four stained or personalized units.
Prerequisites: T-DEN 101, T-DEN 104, T-DEN 106.

T-DEN 212 Advanced Ceramic Techniques 6 (2-12)
Advanced study of various techniques for bonding porcelain to metal and methods of personalizing porcelain used in bridge construction. Laboratory experiences include fabrication of eight crown and bridge units, including two single crowns.
Prerequisite: T-DEN 211.

T-DEN 213 Dental Laboratory Practice 2 (1-3)
Fabrication of appliances from original impressions and a technical prescription supplied by the School of Dentistry, University of North Carolina; completed appliance is to be utilized by a patient. Dentist-laboratory relations are followed, with the exception that the technician-student witness insertion of some of the appliances fabricated in the school laboratory. Minimum appliances to be fabricated are one inlay, one bridge (not over three units), one partial upper or lower, and one full denture.
Prerequisites: T-DEN 107, T-DEN 113, T-DEN 201, T-DEN 205.

T-DEN 214 Advanced Dental Laboratory Practice 3 (1-6)
Further practice in fabrication of appliances from original impressions and technical prescriptions supplied by the School of Dentistry, University of North Carolina; continued emphasis on ethical dentist-laboratory relations. Appliances to be fabricated include those of T-DEN 213, plus additional specialties approved by the instructor and as arranged with the UNC Dental School.
Prerequisite: T-DEN 213.

DRAFTING

COURSE DESCRIPTIONS

T-DFT 101 Technical Drafting 2 (0-6)
The field of drafting is introduced as the student begins study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are: use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.
Prerequisite: None.

T-DFT 102 Technical Drafting 2 (0-6)
The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxiliary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices for "details" and "working drawings," approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.
Prerequisite: T-DFT 101.

T-DFT 103 Technical Drafting 2 (0-6)
Intersection and developments and their practical solutions. Where applicable, model solutions accompany the problems. The various techniques employed to produce and render isometric and oblique drawings, isometric, dimetric and trimetric projections, will be included.
Prerequisite: T-DFT 102.

T-DFT 111 Blueprint Reading and Sketching 1 (0-3)
Reading and interpretation of blueprints, drawings, charts, wiring diagrams, service manuals and associated information. Practice in free-hand sketching of wiring diagrams and parts using basic principles of lines, views, and dimensions.
Prerequisite: None.

T-DFT 201 Technical Drafting 4 (2-6)
Applications and constructions of charts, graphs, and nomographs in engineering and technical data. Screw threads, springs, keys, rivets, piping, and welding symbols, methods of representing and specifying will be covered. Basic mechanisms of motion transfer, gears and cams, will be studied and drawn with emphasis on methods of specifying, calculating, dimensions, and delineating.
Prerequisite: T-DFT 103.

T-DFT 204 Descriptive Geometry 4 (2-4)
Graphic analysis of space problems involving points, lines, planes, connectors, and a combination of these. Practical design problems will be stressed with analytical verification where applicable. Visualization shall be stressed on every problem.
Prerequisites: T-DFT 102, T-MAT 102.

T-DFT 205 Design Drafting I 4 (2-6)
Basic design is introduced in the study of motion transfer mechanisms as they relate to power trains. Principles of design sketching, design drawing, layout drafting, detailing from layouts, production drawings and simplified drafting practices constitute areas of study. Types and methods of specifying materials and workmanship are an integral part of the course.
Prerequisites: T-DFT 204, T-MAT 102, T-PHY 106.
Corequisites: T-MEC 205, T-DFT 211.

T-DFT 206 Design Drafting II 4 (2-6)
Research to solve a problem in design by consulting various manuals, periodicals, and through laboratory experiments. A written technical report, preliminary design sketches, layout drawings, detail drawings, assembly and sub-assembly drawings, pictorial drawings, exploded pictorial assembly, patent drawings and specifications are required as a part of the problem.
Prerequisites: T-DFT 205, T-DFT 211.

T-DFT 211 Mechanisms 4 (3-2)
Mathematical and drafting room solutions of problems involving the principles of machine elements. Study of motions of linkages, velocities and acceleration of points within a link mechanism; layout methods for designing cams, belts, pulleys, gears and gear trains.
Prerequisites: T-DFT 201 & 204, T-MAT 102, T-PHY 106.

T-DFT 212 Jig and Fixture Design 4 (2-6)
Commercial standards, principles, practices and tools of jig and fixture design. Individual project and design work to acquaint students with the types of jigs and fixtures and their design.
Prerequisites: T-DFT 205, T-DFT 211.

ECONOMICS

COURSE DESCRIPTIONS

T-ECO 102 Economics 3 (3-0)
The fundamental principles of economics including the institutions and practices by which people gain a livelihood. Included is a study of the laws of supply and demand and the principles bearing upon production, exchange, distribution, and consumption both in relation to the individual enterprise and to society at large.
Prerequisite: None.

T-ECO 104 Economics 3 (3-0)
Greater depth in principles of economics, including a penetration into the composition and pricing of national output, distribution of income, international trade and finance, and current economic problems.
Prerequisite: T-ECO 102.

T-ECO 108 Consumer Economics 3 (3-0)
Designed to help the student use his resources of time, energy, and money to get the most out of life. It gives the student an opportunity to build useful skills in buying, managing his finances, increasing his resources, and to understand better the economy in which he lives.
Prerequisite: None.

ELECTRICITY

COURSE DESCRIPTIONS

T-ELC 101 Fundamentals of Electricity 6 (4-4 or 6)
Elementary principles of electricity including: basic electric units, Ohms law, Kirchhoffs law, network theorems, magnetics, basic electrical measuring instruments, inductance, capacitance, sine wave analysis, and non-resonant resistive, inductive and capacitive networks.
Prerequisite: None.

T-ELC 102 Fundamentals of Electricity 6 (4-4 or 6)
Series and parallel resonant-circuit analysis, resonant and non-resonant transformer analysis, basic diode power supply analysis, introduction to non-linear resistive control devices, and introduction to electro-mechanical devices.
Prerequisite: T-ELC 101.

T-ELC 201 Electrical Machinery 3 (3-0)
A course in the basic understanding and application of electricity to modern industrial machinery. Included is a study of direct current motors, motor controls and protecting devices, transformers, and the industrial applications of this equipment.
Prerequisite: T-PHY 103.

T-ELC 210 Rotating Devices 3 (2-2)
Introduction to electrical machinery. AC and DC motor and generator principles, synchros and servomechanisms, alternators and dynamotors, Ward-Leonard and amplidyne control systems will be analyzed. A general knowledge of the theory, operation, and maintenance of these devices and systems will be stressed.
Prerequisites: T-ELC 102, T-PHY 102.

ELECTRONICS

COURSE DESCRIPTIONS

T-ELN 101 Electronic Instruments and Measurements 3 (1-4 or 6)
A study of basic electronic instruments, their theory of operation, function, tolerances, and calibration. Both service and laboratory instruments will be studied. Laboratory experience will provide application of each type instrument studied.
Prerequisite: T-ELC 102.

T-ELN 105 Control Devices 7 (5-4 or 6)
A study in depth of the electrical characteristics of vacuum tubes and transistors. Basic parameters and applications of each type device to the three configurations of a three terminal two port system will be included.
Prerequisite: T-ELC 102.

T-ELN 201 Industrial Controls 4 (3-2)
Industrial controls is the study of modern methods of controlling machinery by electronic circuitry. Machinery controls and electronic mechanisms that automatically operate machines will be studied. Types of motors, generators, control signals and devices, thyratrons, gates, switches, and servomechanism circuits are major areas of study.
Prerequisite: T-PHY 103.

T-ELN 205 Applications of Vacuum Tubes and Transistors 7 (5-4 or 6)
Practical applications of vacuum tubes and transistors to basic audio amplifiers, radio frequency amplifiers, detectors, modulators and oscillators.
Prerequisite: T-ELN 105.

T-ELN 210 Semiconductor Circuit Analysis 6 (5-2 or 3)
A study in some depth of the analysis and design of transistor circuits. Network theorems and equivalent circuits are used extensively in evaluating total circuit performance. Device peculiarities and limitations pertinent to reliable operations are considered. H. Y. Z. and T. parameters are employed as well as signal-flow graphs.
Prerequisite: T-ELN 105.

T-ELN 214 Wave Shaping and Pulse Circuits 3 (2-2 or 3)
Broadband amplifiers, magnetic amplifiers, multivibrators, wave shaping techniques, chopper amplifiers, clipper and clamper circuits.
Prerequisites: T-ELN 105, T-MAT 103.

T-ELN 215 Wave Shaping and Pulse Circuits 3 (2-2 or 3)
Pulse techniques, diode switches, gates, step-counters, restorers and other specific circuits which function as switches.
Prerequisite: T-ELN 214.

T-ELN 220 Electronic Systems 7 (5-4 or 6)
A block diagram course investigating numerous electronic systems. Modules or blocks of various circuits already studied are arranged in various manners to produce complex electronic systems. Systems will be explained and reduced to functions and then to block diagrams. AM, FM, and Single Sideband transmitters and receivers, multiplexing, TV transmitters and receivers, pulse-modulated systems, computers, telemetry, navigational systems, sonar and radar will be considered.
Corequisite: T-ELN 215.

T-ELN 225 Transmission and Propagation 3 (3-0)
An introduction to the electromagnetic radiation, principles of antenna, radiation patterns and field strength. The characteristics and use of transmission lines in radio frequency application. Factors involved in propagation, ground waves, reflections, sky waves, atmospheric effects, ionosphere, fading, noise, static, wire radiators, directive gain, effect of ground, impedence, antenna systems and arrays.
Prerequisite: T-ELN 105.
Corequisite: T-ELN 205.

T-ELN 227 UHF and Microwave Systems 7 (5-4)
A study of UHF and VHF components, circuits, and measurement techniques. The use of distributed constant elements, waveguides and coaxial cables, microwave links, high frequency oscillators, magnetrons, klystrons, traveling wave tubes. An introduction to the use of the Smith Chart.
Prerequisite: T-ELN 225.

T-ELN 230 Television Systems 7 (4-6)
A study of the principles of television including the television system, camera tubes, scanning and synchronization, composite video signal, receiver circuits, transmitting equipment, color television, and closed-loop systems.
Corequisite: T-ELN 214.

T-ELN 235 Industrial Instrumentation 7 (4-6)
Broad introduction to use of industrial electro-mechanical and electronic circuits and equipment. Provides an understanding of the methods, techniques, and skills required for installation, service and operation of a variety of industrial control systems. Analysis of sensing devices for detecting changes in pressure, temperature, humidity, sound, light, electricity, the associated circuitry and indicating and recording devices.
Prerequisites: T-ELN 205, T-PHY 104.

T-ELN 240 Digital Computers 3 (3-0)
An exploration into the methodology of counting and computing. Various computer techniques will be investigated including: non-sinusoidal waveforms, binary and decade counters, industrial counters, readout devices, logic circuits, arithmetic circuits, storage devices, input-output devices, computer control, analog and digital converters.
Prerequisite: T-ELN 214.

T-ELN 245 Electronic Design Project 2 (0-4)
Students are required to design and construct a project approved by the instructor. Includes selection of project, design, construction, and testing of completed project. Projects may include: AM or FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, masers, etc.
Prerequisite: T-ELN 205.

ENGLISH

COURSE DESCRIPTIONS

T-ENG 101 Grammar 3 (3-0)
Designed to aid the student in the improvement of self-expression in grammar. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in their day-to-day situations in industry and social life.
Prerequisite: None

T-ENG 102 Composition 3 (3-0)
Designed to aid the student in the improvement of self-expression in business and technical composition. Emphasis is on the sentence, paragraph and whole composition.
Prerequisite: T-ENG 101.

T-ENG 103 Report Writing 3 (3-0)
The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices, are completed by the students. Practical application in the preparation of a full-length report is required of each student at the end of the term. This report must have to do with something in his chosen curriculum.
Prerequisite: T-ENG 102.

T-ENG 204 Oral Communication 3 (3-0)
A study of basic concepts and principles of oral communications to enable the student to communicate with others. Emphasis is placed on the speaker's attitude, improving diction, voice, and the application of particular techniques of theory to correct

speaking habits and to produce effective oral presentation. Particular attention given to conducting meetings, conferences, and interviews.
Prerequisite: T-ENG 101.

T-ENG 206 Business Communication 3 (3-0)
Develops skills in techniques in writing business communications. Emphasis is placed on writing action—getting sales letters and prospectuses. Business reports, summaries of business conferences, letters involving credit, collections, adjustments, complaints, orders, acknowledgments, remittances, and inquiry.
Prerequisite: T-ENG 102.

INDUSTRIAL SCIENCE

COURSE DESCRIPTIONS

T-ISC 201 Industrial Organization and Management 3 (3-0)
Organizational structure for industrial management; operational and financial activities, including accounting, budgeting, banking, credit and industrial risk, forecasting of markets, selection and layout of physical facilities; selection, training and supervision of personnel as found in typical industrial organizations.
Prerequisite: None.

MATHEMATICS

COURSE DESCRIPTIONS

T-MAT 100 Technical Mathematics 5 (5-0)
This course covers the review of whole numbers, fractions, powers and roots, operations with mixed numbers, common fractions, mensuration. A theory study in the development of number lines and algebra to include signed numbers, arithmetic operations with signed numbers, algebraic symbols, linear equations in one and two unknowns, factoring and algebraic operations.
Prerequisite: None.

T-MAT 101 Technical Mathematics 5 (5-0)
The real number system is developed as an extension of natural numbers. Number systems of various bases are introduced. Fundamental algebraic operations, the rectangular coordinate system, as well as fundamental trigonometric concepts and operations are introduced. The application of these principles to practical problems is stressed.
Prerequisite: T-MAT 100.

T-MAT 102 Technical Mathematics 5 (5-0)
A continuation of MAT 101. Advanced algebraic and trigonometric topics including quadratics, logarithms, determinants, progressions, the binominal expansion, complex numbers, solution of oblique triangles and graphs of the trigonometric functions are studied in depth.
Prerequisite: T-MAT 101.

T-MAT 103 Technical Mathematics 5 (5-0)
The fundamental concepts of analytical geometry, differential and integral calculus are introduced. Topics included are graphing techniques, geometric and algebraic interpretation of the derivative, differentials, rate of change, the integral and basic integration techniques. Applications of these concepts to practical situations are stressed.
Prerequisite: T-MAT 102.

T-MAT 110 Business Mathematics 5 (5-0)
This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.
Prerequisite: None.

T-MAT 201 Technical Mathematics 5 (5-0)
A continuation of T-MAT 103. More advanced concepts of differentiation and integration are considered. Included are graphs and derivatives of the trigonometric functions, exponential and logarithmic differentiation and integration, advanced integration techniques, polar equations, parametric equations, and Fourier series.
Prerequisite: T-MAT 103.

T-MAT 208 Calculus and Laplace Transforms for Electronics 5 (5-0)
An investigation of the methods of calculus which are of the most direct use in the study of electronic circuits. Introduction to selected topics from differential equations and Laplace transforms and applications of these methods to the solution of electronic circuit problems.
Prerequisite: T-MAT 201.
Corequisite: T-ELN 214.

MECHANICAL

COURSE DESCRIPTIONS

T-MEC 100 Shop Practice 3 (1-6)
This course is designed to give the student an understanding of and an appreciation for the various materials that are common to the present day industries. It covers the composition of materials and their relation to each other. The lectures coupled with laboratory exercises, provide the student an opportunity to actually work with such materials as metals, plastics, woods and ceramics. Special emphasis is placed on the correct use of basic hand tools and the simple basic measuring instruments.
Prerequisite: None.

T-MEC 101 Machine Processes 2 (0-6)
An introductory course designed to acquaint the student with basic hand tools, safety procedures and machine processes of our modern industry. It will include a study of measuring instruments, characteristics of metals and cutting tools. The student will become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.
Prerequisite: None.

T-MEC 102 Machine Processes 2 (0-6)
Advanced operations on lathe, drilling, boring and reaming machines. Milling machine theory and practice. Thorough study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.
Prerequisite: T-MEC 101.

T-MEC 110 Fundamental Mechanisms 4 (2-4)
A study of the purpose and actions of cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, and other mechanical devices used to transmit or control signals.
Prerequisite. T-PHY 102.

T-MEC 120 Welding Techniques 1 (0-3)
Principles of oxyacetylene welding and cutting, and brazing. Basic principles, procedures, safety, and experience in using arc welding equipment.
Prerequisite: None.

T-MEC 205 Strength of Materials 4 (3-2)
Study of principles and analysis of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying and dynamic. Analyses of these stresses are made as applied to thin-walled cylinders and spheres, riveted and welded joints, beams, columns and machine components.
Prerequisites: T-PHY 106, T-MAT 103.

T-MEC 210 Physical Metallurgy 4 (3-3)
Introductory course in metallurgy, a basic study of the properties of metals and alloys. Analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Solid (crystalline) structures, methods of designating crystal planes; liquid and vapor phases; phase diagrams; and alloy systems.
Prerequisite: T-PHY 101.

T-MEC 211 Physical Metallurgy 4 (3-3)
Properties of metals and alloys, the reactions of metals, diffusion, carburizing, metal bonding and homogenization; recrystallization and grain growth, age hardening, nitriding, internal oxidation; heat treatment of steel; laboratory experiments and demonstrations.
Prerequisite: T-MEC 210.

T-MEC 235 Hydraulics and Pneumatics 4 (3-3)
The basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators and reservoirs.
Prerequisite: T-PHY 102.

T-MEC 237 Control Systems 4 (2-4)
Hydraulic, pneumatic, mechanical, electrical and electronic control systems and components. Basic description, analysis and explanation of operation. Typical performance characteristics, limitations on performance, accuracy, applications and their utilization in industrial processes.
Prerequisites: T-PHY 103, T-PHY 205.

PHYSICS

COURSE DESCRIPTIONS

T-PHY 100 Science of Measured Values 3 (3-0)
Topics covered include scientific notation, techniques of measurements, significant figures, development of systems of units, and manipulative slide-rule operations.
Prerequisite: None.

T-PHY 101 Physics: Properties of Matter 4 (3-2)
A fundamental course covering several basic principles of physics. The divisions included are solids and their characteristics, liquids at rest and in motion, gas laws and applications. Laboratory experiments and specialized problems dealing with these topics are part of this course.
Prerequisite: None.
Corequisite: T-MAT 101.

T-PHY 102 Physics: Work, Energy, Power 4 (3-2)
Major areas covered in this course are work, energy, and power. Instruction includes such topics as statics, forces, center of gravity and dynamics. Units of measurement and their applications are a vital part of this course. A practical approach is used in teaching students the use of essential mathematical formulas.
Prerequisites: T-MAT 101, T-PHY 101.

T-PHY 103 Physics: Electricity 4 (3-2)
Basic theories of electricity, types of electricity, methods of production, and transmission and transforming of electricity. Electron theory, electricity by chemical action, electricity by friction, electricity by magnetism, induction voltage, amperage, resistance, horsepower, wattage, and transformers are major parts of the course.
Prerequisites: T-MAT 101, T-PHY 101.

T-PHY 104 Physics: Light and Sound 4 (3-2)
A survey of the concepts involving wave motion leads to a study of sound, its generation, transmission and detection. The principles of wave motion also serve as an intro-

duction to a study of light, illumination and the principles involved in optical instruments. Application is stressed throughout.
Prerequisites: T-MAT 101, T-PHY 101.

T-PHY 106 Applied Mechanics 5 (5-0)
Concepts and principles of statics and dynamics. Parallel concurrent and noncurrent force systems in coplanar and noncoplanar situations. Concepts of centroids and center of gravity, moments of inertia, fundamentals of kinetics, and kinematics of velocity and motion.
Prerequisites: T-MAT 102, T-PHY 102.

T-PHY 209 Thermodynamics 3 (3-0)
A basic course to familiarize the student with the principles of thermodynamics. Topics include heat, temperature, work and the first and second laws of thermodynamics, with basic applications. Gases, vapor cycles, combustion and the internal combustion engine are studied.
Corequisites: T-PHY 102, T-MAT 102.

POLITICAL SCIENCE

COURSE DESCRIPTIONS

T-POL 201 United States Government 3 (3-0)
A study of government with emphasis on basic concepts, structure, powers, procedures and problems.
Prerequisite: None.

PSYCHOLOGY

COURSE DESCRIPTIONS

T-PSY 112 Personality Development 3 (3-0)
Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement.
Prerequisite: None.

T-PSY 206 Applied Psychology 3 (3-0)
A study of the principles of psychology that will be of assistance in the understanding of inter-personal relations on the job. Motivation, feelings and emotions, are considered with particular reference to on-the-job problems. Other topics investigated are: employee selection, supervision, job satisfaction, and industrial conflicts. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community.
Prerequisite: None.

SOCIAL SCIENCE

COURSE DESCRIPTIONS

T-SSC 201 Social Science 3 (3-0)
An integrated course in the social sciences, drawing from the fields of anthropology, psychology, history, and sociology.
Prerequisite: None.

T-SSC 202 Social Science **3 (3-0)**
A further study of social sciences with emphasis on economics, political science, and social problems as they relate to the individual.
Prerequisite: T-SSC 201.

T-SSC 205 American Institutions **3 (3-0)**
A study of the effect of American social, economic, and political institutions upon the individual as a citizen and as a worker. The course dwells upon current local, national, and global problems viewed in the light of our political and economic heritage.
Prerequisite: None.

VOCATIONAL EDUCATION

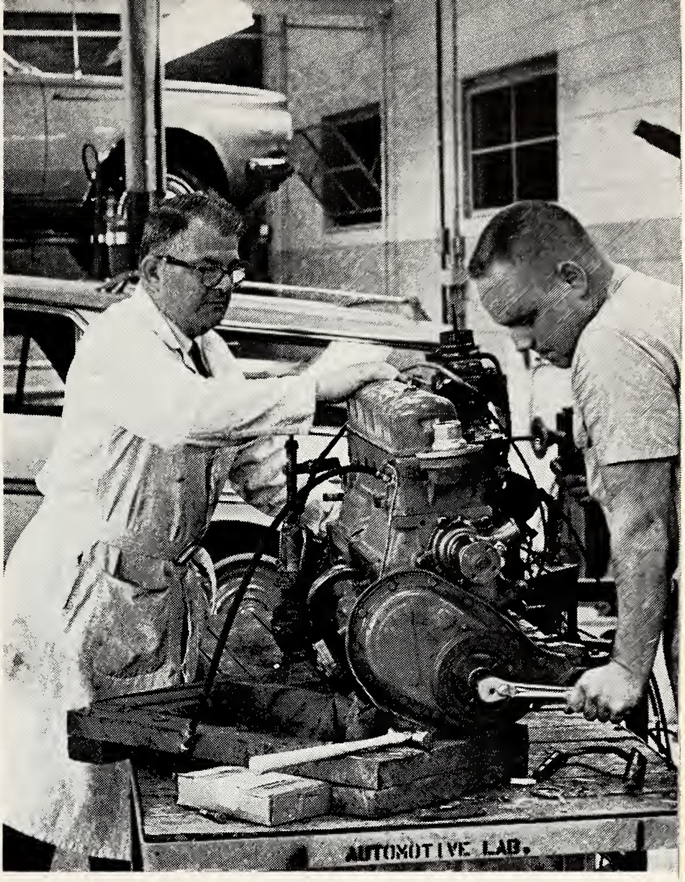
VOCATIONAL EDUCATION

At Durham Technical Institute the primary aims of the Vocational Programs are to educate and train students as skilled craftsmen and to prepare them to successfully meet the manpower needs created by technological advancement and to provide them, through the study of related areas, with the ability to develop an understanding of the free enterprise system and also an appreciation for his responsibilities as a citizen in a free democratic society.

The vocational courses place emphasis on education and training in those manipulative and mental skills necessary for immediate employment in a skilled occupation upon completion of the program.

Many people in the vocational trades area help to operate communication facilities, transportation systems and modern power installations. Others build homes, factories, office buildings, and prepare drawing board plans for highly complex machinery and equipment. Still others care for the sick, invalid, and aged through the many health care occupations.

The trade programs require one full year of participation for students on a full time basis. These programs are terminal and prepare the student for entry into his occupational area immediately upon completion of the course.


AUTOMOTIVE LAB.

AUTOMOTIVE MECHANICS

This Curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair or adjust automotive vehicles. Manual skills are developed in practical shop work. Thorough understanding of the operating principles involved in the modern automobile comes in class assignments, discussion, and shop practice.

Complexity in automotive vehicles increases each year because of scientific discovery and new engineering. These changes are reflected not only in passenger vehicles, but also in trucks, buses and a variety of gasoline-powered equipment. This curriculum provides a basis for the student to compare and adapt to new techniques for servicing and repair as vehicles are changed year by year.

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks, and buses. In some communities and rural areas they also may service tractors or marine engines and other gasoline-powered equipment. Mechanics inspect and test to determine the cause of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition. They become acquainted with shop manuals and other technical publications.

Automotive mechanics in smaller shops usually are general mechanics qualified to perform a variety of repair jobs. A large number of automobile mechanics specialize in particular types of repair work. For example, some may specialize in repairing only power steering and power brakes, or automatic transmissions. Usually such specialists have an all-round knowledge of automotive repair and may occasionally be called upon to do other types of work.

REPRESENTATIVE POSITIONS PREPARED FOR

General Mechanic
Fuel System Specialist
Trouble Shooter
Minor Repair Mechanic
Service Representative
Transmission Specialist
Wheel Alignment Specialist
Service Station Operator

FIRST QUARTER

			Hours Per Week		Quarter Hours Credit
			Class	Lab.	
PME	1101	Internal Combustion Engines	3	12	7
MAT	1101	Fundamentals of Mathematics	5	0	5
ENG	1101	Reading Improvement	2	0	2
PHY	1101	Applied Science	3	2	4
			13	14	18

SECOND QUARTER

PME	1102	Engine Electrical and Fuel Systems	5	12	9
ENG	1102	Communication Skills	3	0	3
DFT	1101	Schematics and Diagrams: Power Mechanics	0	3	1
PHY	1102	Applied Science	3	2	4
			11	17	17

THIRD QUARTER

AUT	1123	Automotive Chassis and Suspensions	3	3	4
AUT	1121	Braking Systems	3	0	3
PSY	1101	Human Relations	2	3	3
AHR	1101	Automotive Air Conditioning	0	3	1
WLD	1101	Basic Gas Welding	3	9	6
			11	18	17

FOURTH QUARTER

AUT	1124	Automotive Power Train Systems	3	9	6
AUT	1125	Automotive Servicing	3	9	6
BUS	1103	Small Business Operations	3	0	3
			9	18	15

* “Manipulative laboratory” involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

ARCHITECTURAL DRAFTING

This curriculum is designed to prepare students to enter the field of architectural drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter architectural drafting occupations.

Each course is prepared to enable an individual to advance rapidly in drafting proficiency upon entering the field of work. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. The draftsman associates with many levels of personnel—administrators, architects, engineers, skilled workmen—and must be able to communicate effectively with them. Courses to develop knowledge and skills in communication, human relations, economics and industrial organization are provided to assist the student in developing understandings and confidence in his relations with other persons.

A Draftsman prepares clear, complete, and accurate working plans and detail drawings, from rough or detailed sketches or notes for engineering or manufacturing purposes, according to the specified dimensions: makes final sketch of the proposed drawing, checking dimension of parts, materials to be used, the relation of one part to another, and the relation of the various parts to the whole structure. Makes any adjustments or changes necessary or desired. Inks in lines and letters on pencil drawings as required. Exercises manual skill in the manipulation of triangle, T-square, and other drafting tools. Lays tracing paper on drawing and traces drawing in pencil or ink. Makes charts for representation of statistical data. Makes finished designs from sketches. Utilizes knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

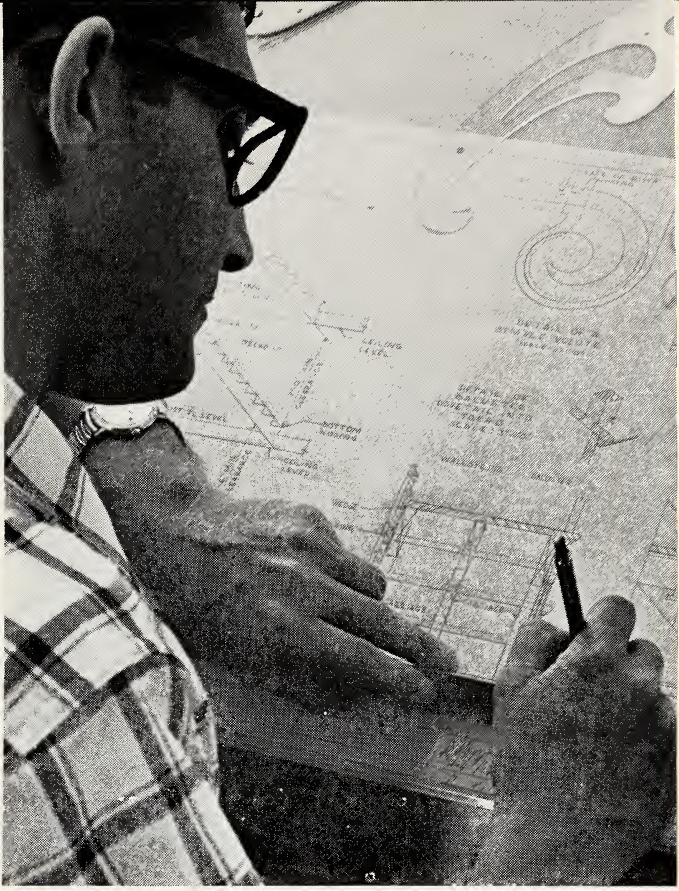
An Architectural draftsman performs the general duties of a draftsman and also specializes in organizing and drawing of working drawings from final preliminary sketches from the designer to include the mechanical equipment and structural drawings.

REPRESENTATIVE POSITIONS PREPARED FOR

Draftsman, Architectural
Draftsman, Commercial
Draftsman, Landscape
Draftsman, Hydraulic
Draftsman, Plumbing
Draftsman, Structural
Draftsman, Topographical
Reinforced Concrete Draftsman

			Hours Per Week Class	Hours Per Week Lab.	Quarter Hours Credit
FIRST QUARTER					
DFT	1121	Drafting	3	12	7
MAT	1102	Algebra	5	0	5
ENG	1101	Reading Improvement	2	0	2
PHY	1101	Applied Science	3	2	4
			13	14	18
SECOND QUARTER					
DFT	1122	Drafting	3	6	5
DFT	1125	Descriptive Geometry	2	3	3
MAT	1103	Geometry	3	0	3
ENG	1102	Communication Skills	3	0	3
PHY	1102	Applied Science	3	2	4
			14	11	18
THIRD QUARTER					
DFT	1141	Building Trades Drafting	3	12	7
MAT	1104	Trigonometry	3	0	3
DFT	1144	Building Materials and Methods	3	0	3
DFT	1143	Building Mechanical Equipment	3	0	3
PSY	1101	Human Relations	3	0	3
			15	12	19
FOURTH QUARTER					
DFT	1142	Building Trades Drafting	3	12	7
DFT	1145	Specifications and contracts	3	0	3
CIV	1101	Surveying	2	3	3
BUS	1103	Small Business Operations	3	0	3
			11	15	16

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.



MECHANICAL DRAFTING

This curriculum is designed to prepare students to enter the field of mechanical drafting. The first two quarters contain courses basic to all fields of drafting. The third and fourth quarters contain specialization and related courses that prepare one to enter mechanical drafting occupations.

Each course is prepared to enable an individual to advance rapidly in drafting proficiency upon entering the field of work. Courses are arranged in sequence to develop drafting skills and proficiency in mathematics and science. The draftsman associates with many levels of personnel—administrative, architects, engineers, skilled workmen—and must be able to communicate effectively with them. Courses to develop knowledge and skills in communication, human relations, economics and industrial organization are provided to assist the student in developing understandings and confidence in his relations with other persons.

A Draftsman prepares clear, complete, and accurate working plans and detail drawings, from rough or detailed sketches or notes for engineering or manufacturing purposes, according to the specified dimensions: makes final sketch of the proposed drawing, checking dimension of parts, materials to be used, the relation of one part to another, and the relation of the various parts to the whole structure. Makes any adjustments or changes necessary or desired. Inks in lines and letters on pencil drawings as required. Exercises manual skill in the manipulation of triangle, T-square, and other drafting tools. Lays tracing paper on drawing and traces drawing in pencil or ink. Makes charts for representation of statistical data. Makes finished designs from sketches. Utilizes knowledge of various machines, engineering practices, mathematics, building materials, and other physical sciences to complete the drawings.

A Mechanical draftsman performs the general duties of a draftsman and also specializes in making rough drafting sketches of proposed mechanical devices, and then drawing necessary details. Prepares accurate scale drawings of parts or machines from specifications.

REPRESENTATIVE POSITIONS PREPARED FOR

Draftsman, Mechanical
Draftsman, Aeronautical
Draftsman, Auto body design
Draftsman, Electrical
Draftsman, Patent
Technical Illustrator
Draftsman, Tool and design
Draftsman, General
Draftsman, Heating and ventilating

FIRST QUARTER

			Hours Per Week		Quarter Hours Credit
			Class	Lab.	
DFT	1121	Drafting	3	12	7
MAT	1102	Algebra	5	0	5
ENG	1101	Reading Improvement	2	0	2
PHY	1101	Applied Science	3	2	4
			13	14	18

SECOND QUARTER

DFT	1122	Drafting	3	6	5
DFT	1125	Descriptive Geometry	2	3	3
MAT	1103	Geometry	3	0	3
ENG	1102	Communication Skills	3	0	3
PHY	1102	Applied Science	3	2	4
			14	11	18

THIRD QUARTER

DFT	1131	Mechanical Drafting	3	12	7
MAT	1104	Trigonometry	3	0	3
PSY	1101	Human Relations	3	0	3
MEC	1113	Shop Processes	2	3	3
MEC	1115	Treatment of Ferrous Metals	2	3	3
			13	18	19

FOURTH QUARTER

DFT	1132	Mechanical Drafting	3	12	7
MEC	1114	Shop Processes	2	3	3
MEC	1116	Treatment of Non-Ferrous Metals	2	3	3
BUS	1105	Industrial Organizations	3	0	3
			10	18	16

* "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour for each three hours of laboratory.

PRACTICAL NURSE EDUCATION

The accelerated growth of population in North Carolina and rapid advancement in medical technology demand an increased number of well-trained personnel for health services. Realizing this need, the North Carolina Department of Community Colleges, in conjunction with local hospitals, administers programs of practical nurse education throughout the state.

The aim of the Practical Nurse Education Program is to prepare qualified persons for participation in care of patients of all ages, in various states of dependency, and with a variety of illness conditions.

Students are selected on the basis of demonstrated aptitude for nursing, as determined by pre-entrance tests, interviews with faculty members, high school record, character references, and reports of medical and dental examinations.

Throughout the one-year program the student is expected to continuously acquire knowledge and understandings related to nursing and the biological and social sciences and to develop skills related to nursing practice, communications, inter-personal relations, and use of good judgment. Evaluation of student performance consists of tests on all phases of course content, evaluation of clinical performance, and evaluation of adjustment to the responsibilities of nursing. A passing score is required on all graded work, plus demonstrated progress in application of nursing skills to actual patient care.

Graduates of accredited programs of practical nurse education are eligible to take the licensing examinations given by the North Carolina Board of Nursing. This examination is given twice each year, usually in April and September. A passing score entitles the individual to receive a license and to the legal title "Licensed Practical Nurse." The license must be renewed annually. The Licensed Practical Nurse can apply for licensure in other states on the basis of a satisfactory examination score, without repeating the examination.

REPRESENTATIVE POSITIONS PREPARED FOR

Medical Nurse
Public Health Nurse Assistant
Private Nurse
Office Nurse
Industrial Nursing
VA Hospital Work
Nursing Home Work
Surgical Nursing
Pediatric Nursing
Obstetrical Nursing
Psychiatric Nursing

Curriculum by Quarters

	Hours Per Week	
	Class*	Lab.*
FIRST QUARTER		
NUR 1001 Practical Nursing I	28	2
SECOND QUARTER		
NUR 1002 Practical Nursing II	12	24
THIRD QUARTER		
NUR 1003 Practical Nursing III	12	24
FOURTH QUARTER		
NUR 1004 Practical Nursing IV	12	24

* Figures given are averages, as there will be some variation from week to week.

VOCATIONAL COURSE DESCRIPTIONS

The contents of Vocational courses are outlined in the following course descriptions. Courses are numbered 1000 through 2000. Courses should be pursued in normal sequence with prerequisite courses taken as outlined.

One quarter hour of credit is earned for a class meeting one hour each week for the duration of the quarter with the exception of regular laboratories and "manipulative laboratories." "Manipulative laboratory" involves development of skills and job proficiency. Credit of one quarter hour is given for each three of these laboratory hours; one quarter hour is given for each two regular laboratory hours.

Provided for each course is the following information: subject number, title, number of hours of credit and in parentheses, the number of lecture hours and the number of laboratory hours each week.

AIR CONDITIONING

COURSE DESCRIPTIONS

AHR 1101 Automotive Air Conditioning 3 (2-3)
General introduction to the principles of refrigeration; study of the assembly of the components and connections necessary in the mechanisms, the methods of operation, and control; proper handling of refrigerants in charging the system.
Prerequisite: PHY 1102.

AUTOMOTIVE

COURSE DESCRIPTIONS

AUT 1121 Braking Systems 4 (3-3)
A complete study of various breaking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment, and repair.
Prerequisite: PHY 1102.

AUT 1123 Automotive Chassis and Suspension Systems 6 (3-9)
Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension, and steering systems. Units to be studied will be shock absorbers, springs, steering systems, steering linkage, and front end and alignment.
Prerequisite: PME 1102.

AUT 1124 Automotive Power Train Systems 6 (3-9)
Principles and functions of automotive power train systems: clutches, transmission gears, torque converters, drive shaft assemblies, rear axles and differentials. Identification of troubles, servicing, and repair.
Prerequisites: PHY 1102, AUT 1123.

AUT 1125 Automotive Servicing 6 (3-9)
Emphasis is on the shop procedures necessary in determining the nature of troubles developed in the various component systems of the automobile. Troubleshooting of automotive systems, providing a full range of experiences in testing, adjusting, repairing and replacing.
Prerequisites: AUT 1123, AUT 1121, AHR 1101.

BUSINESS

COURSE DESCRIPTIONS

BUS 1103 Small Business Operations 3 (3-0)
An introduction to the business world, problems of small business operation, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations.
Prerequisite: None.

BUS 1105 Industrial Organizations 3 (3-0)
Methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product cost.
Prerequisite: None.

CIVIL

COURSE DESCRIPTIONS

CIV 1101 Surveying 3 (2-3)
Basic instrumentation and topography will be studied together with field trips and drafting room application of site surveying.
Prerequisite: MAT 1104.

DRAFTING

COURSE DESCRIPTIONS

DFT 1101 Schematics & Diagrams: Power Machanics 1 (0-3)
Interpretation and reading of blueprints. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes.
Prerequisite: None.

DFT 1121 Drafting 7 (3-12)
An introduction to drafting and the study of drafting practices. Instruction is given in the selection, use and care of instruments, singlestroke lettering, applied geometry, freehand sketching consisting of orthographic and pictorial drawings. Orthographic projection, reading and instrument drawing of principal views, single auxiliary views (primary), and double (oblique) auxiliary views will be emphasized. Dimensioning and note practices will be studied with reference to the American Standards Association practices. Methods of reproducing drawings will be included at the appropriate time.
Prerequisite: None.

DFT 1122 Drafting 5 (3-6)
The trainee will study simple and successive revolutions and their applications to practical problems. Sections and conventions will be studied and both detail and assembly sections will be drawn. Intersections and developments will be studied by relating the drawing to the sheet metal trades. Models of the assigned drawings will

be made from construction paper, cardboard, or similar materials as a proof of the solution to the problems drawn. Methods of drawing and projecting axonometric, oblique, and perspective drawings will be studied with emphasis on the practical applications of pictorial drawings. Various methods of shading will be introduced and dimensioning and sectioning of oblique and axonometric pictorials will be done.
Prerequisite: DFT 1121.

DFT 1125 Descriptive Geometry 3 (2-3)
Graphical analysis of space problems. The problems deal with practical design elements involving points, lines, planes, connectors, and a combination of these. Included are problems dealing with solid geometry theorems. Where applicable, each graphical solution shall be accompanied by the analytical solution.
Prerequisite: DFT 1121.

DFT 1131 Mechanical Drafting 7 (3-12)
An introduction to mechanical drafting beginning with problems concerning precision and limit dimensioning. Methods of fastening materials, and fasteners: keys, rivets, springs, and welding. Symbols will be studied and drawings will be made involving these items. Principles of design will be introduced with the study of basic mechanisms of motion transfer; gears, cams, power trains, pulleys, belting and methods of specifying and calculating dimensions will be studied. Drawings will be made involving these mechanisms.
Prerequisite: DFT 1122.

DFT 1132 Mechanical Drafting 7 (3-12)
Principles of design sketching, design drawings, layout drafting, detailing from layout drawings, production drawings and simplified drafting practices constitute areas of study. Forging and casting drawings will be made from layouts. Specifications, parts list and bill of materials are emphasized in this course. The student will develop a complete set of working drawings of a tool, jig, fixture or simple machine and learn principles of design, handbook and manual usage.
Prerequisite: DFT 1131.

DFT 1141 Building Trades Drafting 7 (3-12)
An introduction to architectural drafting. Further development of techniques in lettering, dimensioning, freehand sketching and instrument drawing. Drawings of construction details, using appropriate material symbols and conventions. Working drawings, including plans, elevations, sections, scale details and full-size details will be prepared from preliminary sketches.
Prerequisite: DFT 1122.

DFT 1142 Building Trades Drafting 7 (3-12)
Individual and group participation in the preparation of complete working drawings for a complex architectural structure. Study of drafting room organization and relationships of personnel within the architectural office.
Prerequisites: DFT 1141, DFT 1143, DFT 1144.

DFT 1143 Building Mechanical Equipment 3 (3-0)
General study of heating, air conditioning, plumbing and electrical equipment, materials and symbols. Building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings by mechanical engineers.
Prerequisite: DFT 1122.

DFT 1144 Building Materials and Methods 3 (3-0)
Materials used in the construction of architectural structures will be studied. Their economic values and limitations affected by locality, budget and codes. Field trips to construction sites and study of manufacturer's specifications for materials. Standard sizes of structural materials and modular construction techniques.
Prerequisite: None.

DFT 1145 Specifications and Contracts 3 (3-0)
The purpose and writings of specifications will be studied along with their legal and practical application to working drawings. Contract documents will be analyzed and studied for the purpose of client-architect-contractor responsibilities, duties and mutual protection.
Prerequisites: DFT 1141, DFT 1143, DFT 1144.

ENGLISH

COURSE DESCRIPTIONS

ENG 1101 Reading Improvement 2 (2-0)
Designed to improve the student's ability to read rapidly and accurately. Special machines are used for class drill to broaden the span of recognition, to increase eye coordination and word group recognition and to train for comprehension in larger units.
Prerequisite: None.

ENG 1102 Communication Skills 3 (3-0)
Designed to promote effective communication through correct language usage in speaking and writing.
Prerequisite: ENG 1101.

MATHEMATICS

COURSE DESCRIPTIONS

MAT 1101 Fundamentals of Mathematics 5 (5-0)
Practical number theory. Analysis of basic operations: addition, subtraction, multiplication and division. Fractions, decimals, powers and roots, percentages, ratio and proportion. Plane and solid geometric figures used in industry; measurement of surfaces and volumes. Introduction to algebra used in trades. Practice in depth.
Prerequisite: None.

MAT 1102 Algebra 5 (5-0)
Basic concepts and operations of algebra: historical background of our base-10 number system; algebraic operations: addition, subtraction, multiplication and division; fractions, letter representation, grouping, factoring, ratio and proportions, variations; graphical and algebraic solution of first degree equations; solution of simultaneous equations by: addition and subtraction, substitution, graphing; exponents, logarithms, tables and interpolation.
Prerequisite: None.

MAT 1103 Geometry 3 (3-0)
Fundamental properties and definitions; plane and solid geometric figures, selected general theorems, geometric construction of lines, angles and plane figures. Dihedral angles, areas of plane figures, volumes of solids. Geometric principles are applied to shop operations.
Prerequisite: None.

MAT 1104 Trigonometry 3 (3-0)
Trigonometric ratios; solving problems with right triangles, using tables, and interpolating; solution of oblique triangles using law of sines and law of cosines; graphs of the trigonometric functions; inverse functions, trigonometric equations. All topics are applied to practical problems.
Prerequisites: MAT 1102, MAT 1103.

MECHANICAL

COURSE DESCRIPTIONS

MEC 1113 Shop Processes 3 (2-3)
Study of practices used in metalworking shops: introduction to how materials can be utilized, and to the processes of shaping, forming and fabricating of metals. Demonstration of the metalworking lathes, grinders, drills, milling machines, shapers, planers, saws, broachers, gear cutting machines and finishing machines. A study of the capabilities of these machines.
Prerequisite: None.

MEC 1114 Shop Processes 3 (2-3)
Comparison of the unit-production and mass-production systems. Casting, forging and allied processes, welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control.
Prerequisite: MEC 1113.

MEC 1115 Treatment of Ferrous Metals 3 (2-3)
Investigates the properties of ferrous metals and tests to determine their uses. Instructions will include some chemical metallurgy to provide a background for the understanding of the physical changes and causes of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatments, alloy of special steel, classification of steels, and cast iron will be topics for study.
Prerequisite: None.

MEC 1116 Treatment of Non-Ferrous Metals 3 (2-3)
Continuation of the study of physical metallurgy. The non-ferrous metals; bearing metals (brass, bronze, lead) light metals (aluminum and magnesium) and copper and its alloys are studied. Powder metallurgy, titanium, zirconium, indium and vanadium are included in this course.
Prerequisite: MEC 1115.

PHYSICS

COURSE DESCRIPTIONS

PHY 1101 Applied Science 4 (3-2)
An introduction to physical principles and their application in industry. Topics in this course include measurements; properties of solids, liquids, and gases; basic electrical principles.
Prerequisite: None.

PHY 1102 Applied Science 4 (3-2)
The second in a series of two courses of applied physical principles. Topics introduced in this course are heat and thermometry, and principles of force, motion, work, energy, and power.
Prerequisite: PHY 1101.

POWER MECHANICS

COURSE DESCRIPTIONS

PME 1101 Internal Combustion Engine 7 (3-12)
Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing

of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, cooling systems; proper lubrication; and methods of testing, diagnosing and repairing.
Prerequisite: None.

PME 1102 Engine Electrical and Fuel Systems **9 (5-12)**
A thorough study of the electrical and fuel systems of the automobile. Battery cranking mechanism, generator, ignition, accessories and wiring; fuel pumps, carburetors, and fuel injectors. Characteristics of fuels, types of fuel systems, special tools, and testing equipment for the fuel and electrical system.
Prerequisite: PME 1101.

PRACTICAL NURSE EDUCATION

COURSE DESCRIPTIONS

NUR 1001 Practical Nursing I **(28-2)**
Designed to assist students in acquiring the knowledge, understanding, appreciations, and attitudes basic to effective nursing of patients of all ages and backgrounds. Emphasis is on nursing needs arising both from the individuality of the patient and from inability for self-care as a result of a health deviation. Patient-centered studies include analysis of patient needs, both through classroom study of hypothetical patient situations and through planned experiences in the clinical environment. Beginning skills in nursing methods are developed through planned laboratory practice and supervised patient care.

NUR 1002 Practical Nursing II **(12-24)**
Designed to introduce the student to deviation from normal, to nursing methods and therapeutic procedures, and to the clinical specialties. Continued patient-centered study, with introduction of the illness condition as an additional source of nursing needs. Increased emphasis on clinical activities and selected patient care.

NUR 1003 Practical Nursing III **(12-24)**
Designed to acquaint the student with common illness conditions, related nursing needs and therapeutic methods, and role of the practical nurse in care of patients with specific conditions. Learning situations are selected to illustrate commonalities with a wide variety of similar conditions and to promote student awareness of similarities and differences. Clinical practice emphasizes student experience in care of subacutely ill patients with a wide variety of illnesses, correlated with classroom studies insofar as possible.

NUR 1004 Practical Nursing IV **(12-24)**
Designed to introduce the student to care of patients with complex nursing needs and to the assisting role of the practical nurse in situations requiring judgments based on depth of knowledge. Clinical practice includes supervised care of labor patients and seriously ill adults and children.

PSYCHOLOGY

COURSE DESCRIPTIONS

PSY 1101 Human Relations **3 (3-0)**
A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.
Prerequisite: None.

WELDING

COURSE DESCRIPTIONS

WLD 1101 Basic Gas Welding **1 (0-3)**
Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding; bronze welding, silver-soldering, and flame-cutting methods applicable to mechanical repair work.
Prerequisite: None.

CONTINUING EDUCATION

OBJECTIVES

Education is a process that continues throughout an individual's life. The recent rapid developments in technology have made it imperative that individuals make purposeful plans to keep abreast of these developments both in the societal and physical changes that have taken place. It is the Institute's aim to afford the individual the opportunity to develop to his fullest potential in whatever areas of vocational and cultural levels that he desires. In this way the Institute helps to build a more functional person which our rapidly changing democratic society demands if our society is to preserve those things important and change those things that need changing.

The Institute offers to any adult the opportunity to continue his education regardless of his background, be he an illiterate or a Ph.D. One individual might like to take a course in Conversational German, Creative Thinking, or Modern Math; another individual might wish to learn to read and write the English language; and still another might wish to improve his job skills in electronics, auto mechanics, or nursing. The Department of Continuing Education stands ready to help you pursue all of these things.

GENERAL INFORMATION

ADMISSION

Any adult who has reached the age of eighteen (18) and is not enrolled in public school is eligible to enroll.

CLASS LOCATIONS

A number of adult classes are held on the Institute campus. Classes are also conducted in any community of the following counties whenever a sufficient number of students have indicated an interest:

Durham County
Granville County
Orange County
Person County
Vance County

FEES

A small fee is charged for certain adult education classes. Such fees, when charged, are due and payable at the first class session. Books and supplies are available through the Institute bookstore. When classes meet at community centers the Institute bookstore makes it possible for books to be purchased at the community center.

ATTENDANCE

Adults are expected to attend class regularly. Attendance records are maintained by class teachers.

CERTIFICATES AND DIPLOMAS

Certificates are awarded students meeting requirements for any of the classes and programs for adults. Adult Education High School Diplomas are awarded to adults satisfactorily completing requirements in the High School program. These diplomas are presented by the local school board of the county or city in which the student resides.

AREAS OF STUDY

PERSONAL INTEREST

In this area the Institute offers the individual an opportunity to attain skills for personal use and general education to broaden the individual culturally. Classes are begun at any time we have fifteen (15) or more individuals registered for a course. Some of the courses available are listed below. Remember, this is only a partial listing. The Department of Continuing Education will offer any course, except social entertainment, provided there is sufficient registration.

1. Conversational German, French, and Spanish
2. Sewing
3. Interior Decorating
4. Speed Reading
5. Great Decisions
6. Great Books

ADULT BASIC EDUCATION AND HIGH SCHOOL COMPLETION

Teaching the skills of communication and computation to any undereducated individual 18 and over is the major purpose of Adult Basic Education. These skills are not meaningful in isolation, so that materials used in Adult Basic Education classes are designed especially for adults in terms of subject matter that has adult interests in mind. For example, family budgeting is used to teach addition, subtraction, multiplication, division, computation with fractions, and reading.

There is no registration fee and no charge for materials. The only cost to the student is his time.

Classes meet in the local communities two nights a week for 2½ hours a night, usually in school buildings.

Instruction is individualized. The teacher and student determine where the student is and where he wants to go. Instruction proceeds on that basis.

Objectives of Adult Basic Education

1. To teach the basic skills of communication and computation to the undereducated individuals age eighteen (18) and over.
2. To increase the social and political competence of the undereducated adults in our service area by teaching the basic concepts of home management, hygiene, political thought, social concern and individual responsibility within a democratic society.
3. To co-ordinate the adult basic education with the high school diploma program and ultimately with the other curriculum and extension offerings of the Institute in an effort to increase the employability of many undereducated adults.
4. To teach courses and gear curricula with the individual student's needs in mind.
5. To educate the people to the worthwhileness and necessity for continuing education even at the basic level.

Schedule of Offerings in Adult Basic Education and High School Completion

Level I is intended for the individual who has great difficulty in reading and writing. Arithmetic is also taught at this level.

Level II is intended for the more advanced reader who has still not achieved an eighth grade reading ability. Much emphasis is placed on arithmetic and the social living skills at this level.

The High School Diploma Program offers an Adult High School Diploma which is issued by the local school board upon recommendation from the Institute that the student has completed the prescribed course of study. A student may transfer credit for course credit earned in a public high school if he can show a transcript so stating. The courses required for completion are:

English (four levels)
General Mathematics
General Science
American History
Government or Civics
Biology

The students must purchase their own texts at the small charge our bookstore must make for them.

The High School Equivalency preparation classes are set up for persons nineteen (19) and older who are not enrolled in the public schools who would like to prepare for other high school equivalency exams. The classes are taught in the major areas of academic pursuit. Areas identified for teaching are:

Math
Science
English
Social Studies

No credit is given for the classes. The student must purchase his own materials.

FUNDAMENTALS LEARNING LABORATORY

The Fundamentals Learning Laboratory consists of self-teaching materials in subjects ranging from fifth grade through high school. Some self-teaching college level courses are also offered. All courses and programs are without costs to students.

The Learning Laboratory has four essential functions:

First, to assist students toward high school completion, either through a diploma program or through a series of courses oriented toward passing the North Carolina State High School Equivalency Examination.

Second, to prepare high school graduates for entrance into higher learning.

Third, to offer a vast variety of courses to persons interested in personal improvement.

Fourth, to serve as a medium for remedial course work for students enrolled in the Institute's regular curriculums.

A special feature of the Learning Laboratory is the Adult High School Diploma Program. This is a unique curriculum of self-teaching materials in English, social studies, science, mathematics, and literature. Special arrangements exist between Durham Technical Institute and the public school systems in four (Durham, Vance, Person, and Orange) counties for the purpose of awarding high school diplomas to students who meet requirements for graduation. Course work is completed in the Learning Laboratory; the diploma is awarded by the school system of the county or city in which the student lives.

Requirements for enrollment in the Fundamentals Learning Laboratory are that an applicant must be eighteen (18) years of age or older and not enrolled in public school. Applicants for the Adult High School Diploma Program must be twenty-one years of age or older and must be a resident of one of the four counties wherein the Diploma Program is operative.

Fundamentals Learning Laboratories are located at the following places:

Durham Technical Institute
1637 Lawson Street
Durham, North Carolina Telephone—596-8293

Person County Adult Education Center
Chub Lake Street
Roxboro, North Carolina Telephone—599-4393

Henderson-Vance Adult Education Center
Law Building, Young Street
Henderson, North Carolina Telephone—438-7370

Orange County Adult Education Center
North Hazel at West Tryon Streets
Hillsborough, North Carolina Telephone—732-2211

EXTENSION SERVICES

Vocational Training

Vocational training classes conducted by the Department of Continuing Education are developed to fit the specific occupational needs of employees in industry and business and to provide training of an upgrading or updating nature. Because of the flexibility of these programs, courses are tailored to meet specific group needs. New programs are initiated as the need is indicated by surveys, interviews, and sufficient enrollments in specific programs. Some examples of these programs are:

Blueprint Reading for All Trades
Mathematics for Machinists
Basic Chemistry for Textile Dying
Sliderule
Automotive Electrical Systems
Basic Electricity
Electronics

The Department will design in-plant programs to improve and enhance employee skills upon request. Such requests are welcomed.

In an attempt to meet the more specialized needs of businesses and public institutions the department offers the following special programs:

Supervisory Development Training: This program is designed to provide instruction for supervisors at various levels of management. Subjects include such areas as human relations, communications, job methods, job analysis, time and motion studies, etc.

Fire Service Training: The growing Piedmont area of North Carolina requires expansion of fire-fighting units and continuous upgrading of fire-fighting personnel. Courses to train fire service personnel in the latest techniques and methods of fire-fighting are provided. The Fire Service Training program provides training sessions in local fire departments. This allows the men to be trained as an organized group utilizing equipment that would ordinarily be used in controlling fires.

Fire Service classes include the following areas of study:

Forcible Entry
Rope Practices
Portable Fire Extenguishers
Ladder Practices
Salvage and Overhaul Practices
Fire Stream Practices
Fire Apparatus Practices
Ventilation
Rescue Practices
Protective Breathing Equipment
Fire-fighting procedures

Hospitality and Tourism Education: The hospitality industry is the third largest industry in North Carolina and affords many employment opportunities to the people of this state. Training is provided for personnel in the motel, restaurant, service station, hospital, and retail businesses, including such subject areas as:

Sales Promotion
Food and Beverage Management and Service
Maintenance and Engineering
Front Office Procedure
Service Station Attendant Training

Distributive Occupational Training: A continuing need for better trained retail and wholesale personnel is another area in which the Department offers opportunity for training. Some of the subject areas are:

Business Management
Marketing Research
Shop-lifting Prevention
Customer Relations

16. WHAT PERSON(S) INFLUENCED YOU MOST IN CHOOSING DURHAM TECHNICAL INSTITUTE? _____ COUNSELOR _____ TEACHER _____ FRIEND _____ PRINCIPAL _____ DTI STUDENT _____ DTI GRADUATE _____ SPEAKER _____ RADIO _____ TV _____ NEWSPAPER _____ VISIT _____ OTHER

17. NAME OF LOCAL NEWSPAPER ADDRESS, CITY AND STATE

18. FINANCIAL ASSISTANCE NEEDED? _____ YES _____ NO ____________ TYPE ____________ MONTHLY AMOUNT NEEDED

19. EDUCATION: ARE YOU A STUDENT? _____ YES _____ NO LIST THE GRADE YOU ARE IN OR GIVE HIGHEST GRADE COMPLETED _____

LIST BELOW ALL HIGH SCHOOLS, COLLEGES, TRADE SCHOOLS, TECHNICAL INSTITUTES ATTENDED. NOTE: AS PART OF YOUR APPLICATION, A TRANSCRIPT OF YOUR RECORD AT EACH SCHOOL ATTENDED IS REQUIRED. YOU ARE EXPECTED TO CONTACT THE SCHOOL(S) AND REQUEST THAT YOUR TRANSCRIPT BE SENT TO DURHAM TECHNICAL INSTITUTE. TWO TRANSCRIPTS ARE REQUIRED OF PRACTICAL NURSE EDUCATION APPLICANTS.

NAME OF SCHOOL	ADDRESS	DATES OF ATTENDANCE	MAJOR FIELD OF STUDY

20. EMPLOYMENT: ARE YOU NOW EMPLOYED? _____ YES _____ NO ____________ PART TIME ____________ FULL TIME ____________ HOURS

STARTING WITH YOUR PRESENT JOB, LIST ALL JOBS HELD IN THE PAST FIVE YEARS OR GIVE ANY OTHER SKILLED WORK EXPERIENCES THAT YOU HAVE HAD.

EMPLOYER	ADDRESS	TYPE OF WORK	REASOR FOR LEAVING

21. EXPLAIN YOUR REASONS FOR APPLYING FOR A PROGRAM OF STUDY AT DURHAM TECHNICAL INSTITUTE.

22. PERSON TO CONTACT IN CASE OF EMERGENCY NAME	ADDRESS	PHONE	RELATIONSHIP

THIS INFORMATION IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE. IF ACCEPTED FOR ADMISSION, I AGREE TO ABIDE BY ALL RULES AND REGULATIONS OF THE SCHOOL.

SIGNATURE ____________________

DATE ____________________

FOR SCHOOL USE ONLY

DATE APPLICATION RECEIVED

APPLICATION FOR ADMISSION

DURHAM TECHNICAL INSTITUTE

ATTACH A RECENT PHOTOGRAPH

RETURN TO:

STUDENT PERSONNEL OFFICE
DURHAM TECHNICAL INSTITUTE
POST OFFICE BOX 11307
DURHAM, NORTH CAROLINA 27703

PLEASE PRINT LEGIBLY

1. NAME OF CURRICULUM YOU ARE INTERESTED IN

WHICH QUARTER DO YOU WISH TO ENTER? ____ FALL ____ SPRING
19________ ____ DAY ____ NIGHT

2. NAME MR. MRS. MISS LAST FIRST MAIDEN

HOME PHONE

DATE OF BIRTH

3. HOME ADDRESS: NUMBER, STREET OR POST OFFICE BOX CITY STATE ZIP CODE COUNTY

4. AGE

RACE ____ CAUCASION ____ INDIAN ____ NEGRO ____ MONGOLOID

US CITIZEN ____ YES ____ NO

SOCIAL SECURITY NUMBER

5. FATHER NAME

LIVING ____ YES ____ NO

ADDRESS, CITY AND STATE

EDUCATION: HIGHEST GRADE COMPLETED

OCCUPATION AND EMPLOYER

6. MOTHER NAME

LIVING ____ YES ____ NO

ADDRESS, CITY AND STATE

EDUCATION: HIGHEST GRADE COMPLETED

OCCUPATION AND EMPLOYER

7. GUARDIAN IF NOT LIVING WITH PARENTS: NAME

ADDRESS, CITY AND STATE

8. YOUR MARITAL STATUS
____ SINGLE ____ MARRIED ____ SEPARATED ____ DIVORCED ____ WIDOWED

NUMBER OF CHILDREN

9. NAME OF HUSBAND OR WIFE

ADDRESS, CITY AND STATE

10. HEIGHT ____ FEET ____ INCHES WEIGHT ____ POUNDS

GENERAL HEALTH CONDITION

11. DO YOU HAVE ANY PHYSICAL DEFECTS OR DISABILITIES? IF SO DESCRIBE

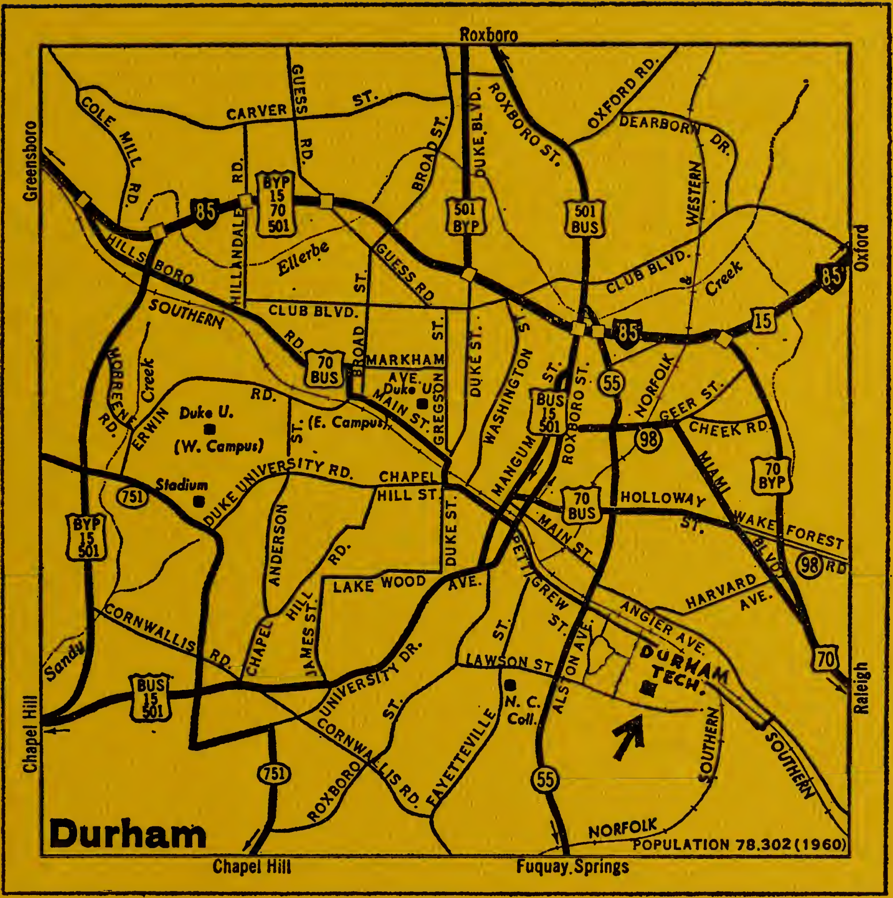
12. HAVE YOU EVER HAD TO DISCONTINUE STUDY OR WORK BECAUSE OF PHYSICAL OR NERVOUS BREAKDOWN? IF SO DESCRIBE

13. HAVE YOU REGISTERED FOR SELECTIVE SERVICE? ____ YES ____ NO
LOCAL BOARD AND LOCATION

SELECTIVE SERVICE NUMBER

14. HAVE YOU HAD ANY MILITARY SERVICE? ____ YES ____ NO ________ BRANCH ________ DATE ENTERED ________ DATE DISCHARGED

15. LIST ANY SPECIAL INTERESTS OR HOBBIES


Durham
POPULATION 78.302 (1960)
Roxboro
Chapel Hill
Fuquay Springs
Greensboro
Oxford
Raleigh
Chapel Hill
DURHAM TECH.
Duke U.
(W. Campus)
Duke U.
(E. Campus)
Stadium
N. C. Coll.
CARVER ST.
COLE MILL RD.
GUESS RD.
HILLANDALE RD.
BROAD ST.
DUKE BLVD.
ROXBORO ST.
OXFORD RD.
DEARBORN DR.
WESTERN
CLUB BLVD.
Ellerbe
Creek
HILLSBORO
SOUTHERN
RD.
MARKHAM AVE.
MAIN ST.
GREGSON ST.
DUKE ST.
WASHINGTON ST.
MANGUM ST.
ROXBORO ST.
NORFOLK
GEER ST.
CHEEK RD.
MIAMI
WAKE FOREST RD.
BLVD.
HOLLOWAY ST.
HARVARD AVE.
ANGIER AVE.
SOUTHERN
ERWIN RD.
MORREENE RD.
Creek
DUKE UNIVERSITY RD.
CHAPEL HILL ST.
ANDERSON ST.
LAKE WOOD AVE.
CORNWALLIS RD.
CHAPEL HILL ST.
JAMES ST.
UNIVERSITY DR.
ROXBORO ST.
FAYETTEVILLE ST.
PETTIGREW ST.
LAWSON ST.
ALSTON AVE.
SOUTHERN
NORFOLK
Sandy
85
BYP 15 70 501
501 BYP
501 BUS
70 BUS
BUS 15 501
55
98
70 BYP
70
15
751
BYP 15 501
BUS 15 501